

PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
UOP, LLC - BLANCHARD FACILITY
FINAL HAZARDOUS WASTE POST-CLOSURE PERMIT

The LDEQ, Office of Environmental Services, has made the decision to issue the final hazardous waste post-closure permit for UOP, LLC, Post Office Box 21566, Shreveport, Louisiana 71120 for the Blanchard Facility Closed Hazardous Waste Pile. **The facility is located at 8725 Old Mooringsport Road, Blanchard, Caddo Parish.**

Under this hazardous waste post-closure permit, UOP, LLC will inspect and maintain the final cover and conduct groundwater monitoring for the Closed Hazardous Waste Pile.

The final permitting action and related documents are available for review and copying (all documents copied will be subject to a \$0.25 charge per copied page) at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). An additional copy of this action may be reviewed at the Shreve Memorial Library, Blanchard Branch, 344 Alexander Street, Blanchard, LA 71009.

In accordance with Louisiana Revised Statutes (La R.S.) 30:2024, the Permittee may file with the secretary a request for a hearing no later than thirty (30) days after the notice of the action is served. Under La. R.S. 30:2050.21, any person aggrieved by a final permit action may appeal to the Nineteenth Judicial District Court within 30 days after the notice of the action has been given.

Previous notices have been published in The Shreveport Times and The Advocate on Monday, October 28, 2005.

Inquiries or requests for additional information regarding this permit action, should be directed to Mr. Craig Easley, LDEQ, Water & Waste Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3087.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at maillistrequest@ldeq.org or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to the issued permit and associated information can be viewed at the LDEQ permits public notice webpage at www.deq.state.la.us/news/PubNotice/ and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at http://www.state.la.us/ldbc/listservpage/ldeq_pn_listserv.htm.

All correspondence should specify AI Number 17846, Permit Number LAD 057109449-PC-1, and Activity Number PER20030003.

Publication Date: Thursday, April 13, 2006

**SIGNATURE
PAGE**



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO

GOVERNOR

MIKE D. McDANIEL, Ph.D.

SECRETARY

Mr. James A. Labanosky
Director of Provisioning
UOP, LLC Blanchard Facility
P.O. Box 21566
Shreveport, LA 71120

RE: Final Hazardous Waste Post-Closure Permit
UOP, LLC Blanchard Facility
LAD 057 109 449-PC-1 /AI#17846/ PER20030003

Dear Mr. Labanosky:

Please find attached your copy of the UOP, LLC, Final Hazardous Waste Post-Closure Permit, LAD 057 109 449-PC-1, which contains language pertaining to the post-closure care of the closed hazardous waste unit at the UOP, LLC, Blanchard Facility.

In accordance with Louisiana Revised Statute (La. R.S.) 30:2024, the Permittee may file with the secretary a request for hearing no later than thirty (30) days after the notice of the action is served. Under La. R.S. 30:2050.21, any person aggrieved by a final permit action may appeal to the Nineteenth Judicial District Court within 30 days after the notice of the action has been given.

Please reference your Agency Interest No. (17846), EPA ID No. (LAD057109449-PC-1), and Permit Activity No. (PER20030003) on all future correspondence pertaining to this matter. If you have any questions, please contact Mr. Craig Easley of the Water and Waste Permits Division at (225) 219-3087 or Ms. Soumaya Ghosn of the Public Participation Group at (225) 219-3276.

Sincerely,

Chuck Carr Brown, Ph.D.
Assistant Secretary

kce

Attachment

c: Catherine Carter – EPA Region 6

ENVIRONMENTAL SERVICES

: PO BOX 4313, BATON ROUGE, LA 70821-4313

P:225-219-3181 F:225-219-3309

WWW.DEQ.LOUISIANA.GOV

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All correspondence should specify AI Number 17846, Permit Number LAD 057109449-PC-1, and Activity Number PER20030003.

Publication Date: Thursday, April 13, 2006

FINAL PERMIT

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

POST-CLOSURE PERMIT FOR THE CLOSED HAZARDOUS WASTE PILE

PERMITTEE: UOP, LLC

PERMIT NUMBER: LAD 057109449-PC-1
Agency Interest # 17846/Activity # PER 20030003

FACILITY LOCATION: 8725 OLD MOORINGSPORT ROAD
BLANCHARD, LOUISIANA, 71107

This permit is issued by the Louisiana Department of Environmental Quality (LDEQ) under the authority of the Louisiana Hazardous Waste Control Law R.S. 30:2171 et seq., and the regulations adopted thereunder and under the authority of the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) to UOP, LLC, (hereafter called the Permittee), for the post-closure care of closed unit located at Blanchard, Louisiana, at latitude 32° 37' 09" and longitude 93° 55' 46."

For the purposes of this permit, the "Administrative Authority" shall be the Secretary of the Louisiana Department of Environmental Quality, or his/her designee.

The permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein and the applicable regulations contained in the Louisiana Administrative Code, Title 33, Part V, Subpart 1, (LAC 33:V.Subpart 1). Applicable regulations are those that are in effect on the effective date of issuance of this permit.

This permit is based on the assumption that the information provided to LDEQ by the Permittee is accurate. Further, this permit is based in part on the provisions of Sections 206, 212, and 224 of the HSWA of 1984, which modify Section 3004 and 3005 of RCRA. In particular, Section 206 requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage or disposal facility seeking a permit, regardless of the time at which waste was placed in such unit.

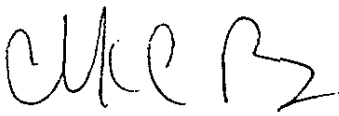
Section 212 provides authority to review and modify the permit at any time. Any inaccuracies found in the submitted information may be grounds for the termination, modification, revocation, and reissuance of this permit (see LAC 33:V.323) and potential enforcement action. The Permittee must inform the LDEQ of any deviation from or changes in the information in the application that would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit shall be effective as of May 15, 2006, and shall remain in effect until May 15, 2016, unless revoked, reissued, modified or terminated in accordance with LAC 33:V.323 and 705 of the Louisiana Hazardous Waste Regulations. The Administrative Authority may issue any permit for a duration that is less than the maximum term of ten (10) years and the term shall not be extended beyond the maximum duration by modification in accordance with LAC 33:V.315.

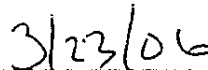
Post-closure requirements of LAC 33:V. Chapter 35, Subchapter B must continue for at least thirty (30) years after the date of closure for those units listed in Section IV of this permit. Expiration of this permit does not relieve the permittee of the responsibility to reapply for a permit for the remainder of the thirty (30) year post-closure care period.

Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the Secretary elects to suspend other provisions as well. A request for hearing must be sent to the following:

Louisiana Department of Environmental Quality
Office of the Secretary
Attention: Hearings Clerk, Legal Services Division
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302



Chuck Carr Brown, Ph.D. Assistant Secretary
Louisiana Department of Environmental Quality



Date

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LIST OF ATTACHMENTS

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ATTACHMENT 2FIGURE 1

BODY OF PERMIT

**FINAL
HAZARDOUS WASTE POST-CLOSURE PERMIT**

**UOP, LLC
EPA ID# LAD 057109449
Agency Interest# 17846**

**Caddo Parish
Blanchard, Louisiana
PER20030003
Permit Number LAD 057109449-PC-1**

I. PERMIT PREAMBLE

This permit is issued to UOP, LLC, hereinafter referred to as the Permittee, by the Louisiana Department of Environmental Quality (LDEQ) under authority of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et seq., and the regulations adopted thereunder.

For the purposes of the permit, "Administrative Authority" shall mean the Secretary of the Department of Environmental Quality, or his/her designee.

This permit is based on information submitted in the permit application, and all subsequent amendments, and on the applicant's certification that such information is accurate and that all facilities were or will be maintained and operated as specified in the application.

This permit is conditioned upon full compliance with all applicable provisions of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et. Seq., and the regulations adopted thereunder.

GLOSSARY OF TERMS

For the purpose of this Permit, terms used herein shall have the same meaning as those in LAC 33:V.Subpart 1 unless the context of use in this Permit clearly indicates otherwise. Where terms are not otherwise defined, the meaning otherwise associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

“Administrative Authority” means the Louisiana Department of Environmental Quality (LDEQ).

“Application” refers to the RCRA Part B Permit Application and subsequent amendments submitted by the Permittee for obtaining a Permit.

“Area of Concern” (AOC) means any discernable unit or area, which, in the opinion of the Administrative Authority, may have received solid or hazardous waste or waste containing hazardous constituents at any time. The Administrative Authority may require investigation of the unit to determine if it is a Solid Waste Management Unit (SWMU). If shown to be a SWMU by the investigation, the AOC must be reported by the Permittee as a newly identified SWMU. If the AOC is shown not to be a SWMU by the investigation, the Administrative Authority may determine that no further action is necessary and notify the Permittee in writing.

“Area of Investigation” (AOI) is a zone contiguous to and including impacted media defined vertically and horizontally by the presence of one or more constituents in concentrations exceeding the limiting SS, MO-1 RS, or MO-2 RS (depending on the option being implemented).

“Beneficial Resource” describes a natural resource that is useful to human and ecological receptors. The state may establish statutes or regulations that identify certain environmental components, such as specific ground water or surface water sources, as a “Special Beneficial Resource,” or “Designated Beneficial Resource.” The beneficial resource then may be entitled to greater protection from contamination.

“Constituents of Concern” (COC) means the COPC’s that pose a significant risk.

“Constituents of Potential Concern” (COPC) means chemicals from hazardous waste and hazardous waste constituents that are potentially site related and have data of quality for use in the Screen or a site-specific risk assessment. The facility should compile a list of COPC’s for each release site based on existing sampling data, waste analysis reports, etc.

“Conceptual Site Model” (CSM) is part of the Data Quality Objective (DQO) process that presents a three-dimensional picture of site conditions at a discrete point in time that conveys what is known about the facility, releases, release mechanisms, contaminant fate and transport, exposure pathways, potential receptors, and risks. The information for the CSM is documented into six profiles. The CSM evolves as data gaps in the profiles become more complete, and will be refined based upon results of site characterization data. The final CSM is documented in the Risk Management Plan (RMP).

“CWA” means Clean Water Act.

“Corrective Action” is an activity conducted to protect human health and the environment.

“DNAPL” a dense liquid not dissolved in water, commonly referred to as “free product.”

“EPA” means the United States Environmental Protection Agency.

“HSWA” means the 1984 Hazardous and Solid Waste Amendments to RCRA.

“Hazardous Constituent” means any constituent identified in LAC 33:V.Chapter 31. Table 1, or any constituent identified in LAC 33:V.3325. Table 4.

“LDEQ” means the Louisiana Department of Environmental Quality.

“LNAPL” a light liquid not dissolved in water, commonly referred to as “free product.”

“Operating Record” means written or electronic records of all maintenance, monitoring, inspection, calibration, or performance testing—or other data as may be required—to demonstrate compliance with this Permit, document noncompliance with this Permit, or document actions taken to remedy noncompliance with this Permit. A minimum list of documents that must be included in the operating record are identified at LAC 33:V.1529.B.

“Permittee” means UOP, LLC, 8725 Old Mooringsport Road, Blanchard, Louisiana 71107.

“RCRA Permit” means the full permit, with RCRA and HSWA portions.

“RFA” means RCRA Facility Assessment.

“RFI” means RCRA Facility Investigation.

“Release” means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

“SARA” means Superfund Amendments and Reauthorization Action of 1986.

“Solid Waste Management Unit” (SWMU) means any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

“Stabilization” is an action taken for the purpose of controlling or abating threats to human health or the environment from releases or preventing or minimizing the further spread of contaminants while long-term remedies are pursued.

If, subsequent to the issuance of this Permit, regulations are promulgated which redefine any of the above terms, the Administrative Authority may, at its discretion, apply the new definition to this Permit.

All regulating citations are defined as being the regulations in effect on the date of issuance of this permit. New and/or amended regulations are not included as Permit requirements until permit modification procedures as specified in Section II.C. of the permit and LAC 33:V.321 are completed.

II. GENERAL PERMIT CONDITIONS

II.A. DURATION OF PERMIT

This permit is effective as of the date indicated on the accompanying signature page and shall remain in effect for a maximum period of ten (10) years from the effective date, unless suspended, modified, revoked and reissued or terminated for just cause.

II.B. EFFECT OF PERMIT

This permit authorizes the Permittee to conduct post-closure care activities associated with the Closed Hazardous Waste Pile in accordance with the conditions of this permit and LAC 33:V.2315.B.1 and 2521.B. The post-closure care for the Closed Hazardous Waste Pile will be based upon the requirements for closed landfills. The Permittee is prohibited from any storage, treatment or disposal of hazardous waste not authorized by statute, regulation or this permit. Compliance with this permit, LAC 33:V.Subpart 1 and HSWA, constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA and Chapter 9 of the Louisiana Environmental Quality Act (Act). However, compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Section 3013 or Section 7003 of RCRA, or under Section 106 (a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) {42 U.S.C. 9606 (a)}.

In accordance with LAC 33:V.307.B and C, issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations.

II.C. PERMIT ACTIONS

Any inaccuracies found in the permit application may be cause for revocation or modification of this permit. The Permittee must inform the Administrative Authority of any deviation from, changes or inaccuracies in the information in the permit application.

The Administrative Authority may also suspend, modify, revoke and reissue, or terminate for cause when necessary to be protective of human health or the environment as specified in 40 CFR 270.41, 270.42, 270.43 or LAC 33:V.309.F, 311.A or 323. The Administrative Authority may modify the permit when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulation or by judicial decision after the

permit was issued. The filing of a request for permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of Permittee does not stay the applicability or enforceability of any permit condition.

II.D. SEVERABILITY

The conditions of this permit are severable and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

II.E. DUTIES AND REQUIREMENTS

II.E.1. Duty to Comply

The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance may be authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit (LAC 33:V.701), constitutes a violation of the LAC 33:V.Subpart 1 and the Environmental Quality Act and is grounds for enforcement action which may include permit termination, permit revocation and reissuance, permit modification, or denial of permit renewal application.

II.E.2. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must reapply for the permit as required by the LAC 33:V.303.N and 309.B. Notification shall be at least 180 calendar days before the permit expires.

II.E.3. Permit Extension

This permit and all conditions herein will remain in effect beyond the permit's expiration date until the Administrative Authority issues a final decision on the re-application, provided the Permittee has submitted a timely, complete new permit application as provided in LAC 33:V.309.B and 315.A.

II.E.4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

II.E.5. Duty to Mitigate

The Permittee shall immediately take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit as required by LAC 33:V.309.D.

II.E.6. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related ancillary equipment) that are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

II.E.7. Duty to Provide Information

The Permittee shall furnish to the Administrative Authority, within a reasonable time, any information which the Administrative Authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Administrative Authority upon request, copies of records required by this permit.

II.E.8. Inspection and Entry

The Permittee shall allow the Administrative Authority or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- II.E.8.a. enter upon the Permittee's premises where a regulated activity is located or conducted, or where records must be maintained under the conditions of this permit;
- II.E.8.b. have access to and copy, at reasonable times, any records that must be maintained under the conditions of this permit;
- II.E.8.c. inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this permit; and

- II.E.8.d.** sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Administrative Authority any substances or parameters at any location.

II.E.9. Sample Monitoring and Records

- II.E.9.a.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, "SW-846", latest revision; Manual of Ground Water Quality Sampling Procedures, 1981, EPA-600/2-81-160, as revised; Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities, 1977, EPA-530/SW-611, as revised; or an equivalent method as specified in the attached Sampling and Analysis Plan referenced in Attachment 1.

II.E.9.b. Records of monitoring information shall include:

- II.E.9.b.(1)** the date, exact place, and time of sampling or measurements;
- II.E.9.b.(2)** the name(s) and signature(s) of the individual(s) who performed the sampling or measurements;
- II.E.9.b.(3)** the date(s) analyses were performed;
- II.E.9.b.(4)** the name(s) and signature(s) of the individual(s) who performed the analyses;
- II.E.9.b.(5)** the analytical techniques or methods used;
- II.E.9.b.(6)** the results of such analyses; and
- II.E.9.b.(7)** associated quality assurance performance data.

II.E.9.c. Laboratory Quality Assurance/Quality Control

In order to ensure the accuracy, precision, and reliability of data generated for use, the Permittee shall submit a statement, certified as specified in LAC 33:V.513 and included in the annual report, indicating that:

II.E.9.c.(1) any commercial laboratory providing analytical results and test data to the Department required by this permit is accredited by the Louisiana Environmental Laboratory Accreditation Program (LELAP) in accordance with LAC 33:I. Subpart 3, Chapter 45. Laboratory data generated by commercial laboratories not accredited under LELAP will not be accepted by the Department.

LAC 33:I. Subpart 3 (Chapters 45-49) provides requirements for the accreditation program. Regulations and a list of labs that have applied for accreditation are available on the LDEQ website located at: <http://www.deq.state.la.us/laboratory/index.htm>.

In accordance with LAC 33:V.4501, the requirements for LELAP accreditation applies whenever data is:

- submitted on behalf of a facility;
- required as part of a permit application;
- required by order of the Department;
- required to be included in a monitoring report submitted to the Department;
- required to be submitted by contract; or
- otherwise required by the Department regulations.

This includes, but is not limited to data from RCRA Trial Burns, Risks Burns, Risk Assessments, MACT Comprehensive Performance Tests, and data used for continuing compliance demonstrations.

II.E.9.c.(2) If the Permittee decides to use their own in-house laboratory for test and analysis, the laboratory is not required to be accredited by LELAP. However, the laboratory must document and submit for approval, quality assurance/quality control procedures that are commensurate with requirements in LAC 33:I. Subpart 3. Laboratory Accreditation.

II.E.9.c.(3) For approval of equivalent testing or analytical methods, the Permittee may petition for a regulatory amendment under LAC 33:V.105.I and LAC 33:I Chapter 9. In cases where an approved methodology for a parameter/analyte is not available

or listed, a request to utilize an alternate method shall be submitted to the Administrative Authority for approval. Documentation must be submitted to the LDEQ that will verify that the results obtained from the alternate method are equal to or better than those obtained from EPA-accepted methods, as well as those deemed equivalent by the LDEQ.

II.E.10. Retention of Records

The Permittee shall maintain records from all ground water monitoring wells and associated groundwater surface elevations for the active life of the facility and for the post-closure care period.

The Permittee shall maintain records through the active life of the facility (including operation, closure and post-closure periods) as required by LAC 33:V.309.J and LAC 33:V.1529.A, B, and C. All records, including plans, must be furnished upon request and made available at all reasonable times as required by LAC 33:V.1529.C.

File copies shall be kept for LDEQ inspection for a period of not less than three years as required by LAC 33:V.317.B.

The Permittee shall, for the life of the permit, maintain records of all data used to complete the application for this permit and any supplemental information submitted under the Louisiana Hazardous Waste Control Law (LA. R.S. 30:2171 et seq.).

II.E.11. Notices of Planned Physical Facility Changes

The Permittee shall give notice to the Administrative Authority, as soon as possible, of any planned physical alterations or additions to the permitted facility, in accordance with LAC 33:V.309.L.1.

II.E.12. Physical Facility after Modification

For a closed unit being modified, the Permittee may not manage hazardous waste in the modified portion of the closed unit until:

- II.E.12.a. the Permittee has submitted to and received approval from the Administrative Authority, by certified mail or hand delivery, a letter signed by the Permittee and an independent registered professional engineer stating that the unit is complete and has been constructed or modified in compliance with the permit; and

II.E.12.b. the Administrative Authority has inspected the modified unit following a request to make final inspection by the Permittee and finds it is in compliance with the conditions of the permit and all applicable sections of LAC 33:V.Subpart 1, and has issued an Order to Proceed. The Permittee may then commence treatment, storage, or disposal of hazardous waste.

II.E.13. Anticipated Noncompliance

The Permittee shall give advance notice to the Administrative Authority of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

II.E.14. Transfer of Permits

This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to LAC 33:V.309.L.4, 321.B, 321.C.4, and 1531.

II.E.15. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

II.E.16. Noncompliance Reporting

The Permittee shall report orally within twenty-four (24) hours any noncompliance with the permit that may endanger human health or the environment, except where more immediate notification is required by LAC 33:I.3901, et seq. ("Notification Regulation and Procedures for Unauthorized Discharges" dated November 19, 1985, as amended.) This report shall include the following:

II.E.16.a. information concerning the release of any hazardous waste that may endanger public drinking water supplies; and

II.E.16.b. information concerning the release or discharge of any hazardous waste, or of a fire or explosion at the facility, that could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:

- II.E.16.b.(1) name, address, and telephone number of the owner or operator;
- II.E.16.b.(2) name, address, and telephone number of the facility;
- II.E.16.b.(3) date, time, and type of incident;
- II.E.16.b.(4) name and quantity of materials involved;
- II.E.16.b.(5) the extent of injuries, if any;
- II.E.16.b.(6) an assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and
- II.E.16.b.(7) estimated quantity and disposition of recovered material that resulted from the incident.

II.E.17. Follow-up Written Report of Noncompliance

The Permittee shall provide a written submission within five (5) days after the time the Permittee becomes aware of any noncompliance which may endanger human health or the environment. However, where more immediate submission is required by LAC 33:I.3901, "Notification Regulations and Procedures for Unauthorized Discharges" dated November 19, 1985, as amended, the report shall be submitted in accordance with those regulations. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. If the Administrative Authority waives the requirement, then the Permittee submits a written report within fifteen (15) days after the time the Permittee becomes aware of the circumstances, as required by LAC 33:V.309.L.7.

II.E.18. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time required monitoring reports are submitted. The reports shall contain the information listed in Section II.E.16. above.

II.E.19. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or that it submitted incorrect information in a permit application, or in any report to the Administrative Authority, the Permittee shall promptly submit such facts or information.

II.E.20. Signatory Requirement

All applications, reports or other information submitted to the Administrative Authority shall be signed and certified according to LAC 33:V.507, 509, 511, and 513.

II.E.21. Schedule of Compliance

(RESERVED)

II.E.22. Additional Operating Standards

(RESERVED)

II.E.23. Updated Documents To Be Submitted Prior To Operation

(RESERVED)

II.E.24. Documents To Be Maintained at Facility Site

II.E.24.a. Until post-closure is completed and certified by an independent registered professional engineer, the Permittee shall maintain at the facility the following documents and any amendments, revisions, and modifications to these documents. Any revision or changes shall be submitted with the annual report unless previously submitted.

II.E.24.a.(1) (RESERVED)

II.E.24.a.(2) Personnel Training Plan and the training records as required by LAC 33:V.1119.

II.E.24.a.(3) Contingency Plan prepared in accordance with LAC 33:V.1117.

II.E.24.a.(4) Arrangements with local authorities in accordance with LAC 33:V.1511.G. (see Attachment 1).

II.E.24.a.(5) Post-Closure Plan submitted in accordance with LAC 33:V.3523 and any post-closure care requirements that may be required initially or through permit modifications in accordance with LAC 33:V.3523 (see Attachment 1).

II.E.24.a.(6) Cost estimate for facility post-closure care submitted in accordance with LAC 33:V.3709 and any post-closure cost estimate that may be required initially or through permit modifications in accordance with LAC 33:V.3709 (see Attachment 1).

II.E.24.a.(7) Operating records as required by LAC 33:V.1529.

II.E.24.a.(8) Inspection Plan developed in accordance with LAC 33:V.517.G and 1509.B (see Attachment 1).

II.E.24.a.(9) Security Plan developed in accordance with LAC 33:V.1507 (see Attachment 1).

II.E.24.b. All proposed amendments, revisions and modifications to any plan or cost estimates required by this permit shall be submitted to the Administrative Authority for approval.

II.E.25. Annual Report

An annual report shall be submitted covering all hazardous waste units and their activities during the previous calendar year as required by LAC 33:V.1529.D.

II.E.26. Manifest

The Permittee shall report manifest discrepancies and unmanifested waste as required by LAC 33:V.309.L.8 and 9.

II.E.27. Emissions

Emissions from any hazardous waste facility shall not violate the Louisiana Air Quality Regulations. If air quality standards are exceeded, the site will follow air regulation protocol.

II.E.28. Waste Discharges

Waste discharges from any hazardous waste facility shall not violate the Louisiana Water Quality Regulations. If water standards are exceeded, the site will follow water quality regulation protocol.

II.E.29. Non-Listed Hazardous Waste Facilities

This permit is issued for those hazardous waste facilities listed in Section IV (Permitted Closed Units). If the Permittee determines that an unpermitted hazardous waste facility exists, the Permittee must immediately notify the Administrative Authority in accordance with Section II.E.19 of the General Permit Conditions.

II.E.30. Compliance With Land Disposal Restrictions

The Permittee shall comply with those land disposal restrictions set forth in LA. R.S. 30:2193, all regulations promulgated thereunder, and the HSWA portion of this permit (Section VII).

II.E.31. Establishing Permit Conditions

Permits for facilities with pre-existing groundwater contamination are subject to all limits, conditions, remediation and corrective action programs designated under LAC 33:V.311.D and LAC 33:V.3303.

II.E.32. Obligation for Corrective Action

Owners or operators of hazardous waste management units must have all necessary permits during the active life of the unit and for any period necessary to comply with the corrective action requirements in Section VIII of this permit. The facility is obligated to complete facility-wide corrective action regardless of the operational status of the facility.

II.E.33. Attachments and Documents Incorporated by Reference

All attachments and documents required by this permit, including all plans and schedules, are incorporated, upon approval by the Administrative Authority, into this permit by reference and become an enforceable part of this permit. Since required items are essential elements of this permit, failure to submit any of the required items or submission of inadequate or insufficient information may subject the Permittee to enforcement action, which may include fines, suspension, or revocation of the permit.

Any noncompliance with approved plans and schedules shall be termed noncompliance with this permit. Written requests for extension of due dates for submittals may be granted by the Administrative Authority.

If the Administrative Authority determines that actions beyond those provided for, or changes to what is stated herein, are warranted, the Administrative Authority may modify this permit according to procedures in LAC 33:V.321.

III. GENERAL POST-CLOSURE CONDITIONS

III.A. DESIGN AND OPERATION OF THE POST-CLOSURE UNIT

III.A.1. The Permittee must maintain the Closed Hazardous Waste Pile and associated structures to minimize the possibility of a fire, explosion, or any unauthorized sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or water that could threaten human health or the environment.

III.A.2. The Permittee must not manage any new wastes in the Closed Hazardous Waste Pile.

III.B. REQUIRED NOTICE

(Reserved)

III.C. GENERAL WASTE ANALYSIS

(Reserved)

III.D. SECURITY

The Permittee must comply with the security provisions of LAC 33:V.1507, as referenced in Attachment 1.

III.E. GENERAL INSPECTION REQUIREMENTS

The Permittee must follow the Inspection Plan referenced in Section II.E.24.a.(8) and Attachment 1. The Permittee must remedy any deterioration or malfunction discovered by an inspection as required by LAC 33:V.1509.C. Records of inspections must be kept as required by LAC 33:V.1509.D. The inspection schedule must include the regulatory requirements of LAC 33:V.517.G, 1509.A and B, and 3523.

III.F. PERSONNEL TRAINING

The Permittee must conduct personnel training as required by LAC 33:V.1119.

III.G. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee must take precautions as required by LAC 33:V.1517 to prevent accidental ignition or reaction of ignitable or reactive wastes.

III.H. LOCATION STANDARDS

III.H.1. The Permittee has furnished evidence that it is in compliance with seismic standards as required by LAC 33:V.517.T.

III.H.2. The Permittee must not manage any hazardous waste on any portion of the property that lies within the 100 year flood plain (as identified in the Flood Insurance Rating Map) unless such areas are raised above this flood level or other means (e.g., levees) are provided to protect such areas from washouts, overtopping by wave action, soil erosion or other effects of such a flood as required by LAC 33:V.1503.B.3. Such site improvements must be certified by independent licensed professional engineers and approved by LDEQ prior to any hazardous waste and/or hazardous waste units being placed thereon.

III.I. PRECIPITATION RUN-ON AND RUN-OFF

The Permittee must provide for the control by diversion or treatment of run-on and run-off resulting from a rainfall of at least twelve (12) inches, occurring during a period of twenty-four (24) hours in conformity with locally available records of a twenty-four (24) hour rainfall as per LAC 33:V.1503.B.2. The Permittee shall comply with the requirements of LAC 33:V.2521.B.5.

III.J. HURRICANE EVENTS

The Permittee must initiate those applicable portions of the Contingency Plan during a hurricane as well as appropriate actions required by LAC 33:V.1507, 1509 and 1511.

III.K. PREPAREDNESS AND PREVENTION

III.K.1. Required Equipment

At a minimum, the Permittee must install and maintain the equipment set forth in the Contingency Plan, as required by LAC 33:V.1511.C.

III.K.2. Testing and Maintenance of Equipment

The Permittee must test and maintain the equipment specified in Section III.K.1 to insure its proper operation in time of emergency. The testing and maintenance of the equipment must be documented in the operating record.

III.K.3. Access to Communications or Alarm Systems

The Permittee must maintain access to the communications or alarm system as required by LAC 33:V.1511.E.1 and 1511.E.2.

III.K.4. Arrangements with Local Authorities

The Permittee shall document in the annual report that the requirements of LAC 33:V.1511.G have been met. This documentation shall include those state and local agencies involved and those facilities and operations covered. Documentation of written arrangements with state and local agencies shall also be included in this report. Where state or local authorities decline to enter into such arrangements, the Permittee must document the refusal in the operating record.

III.L. CONTINGENCY PLAN

III.L.1. Implementation of Plan

The Permittee must immediately carry out the provisions of the Contingency Plan, and follow the emergency procedures described by LAC 33:V.1513.F whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that threaten or could threaten human health or the environment.

III.L.2. Copies of Plan

The Permittee must comply with the requirements of LAC 33:V.1513.C.

III.L.3. Amendments to Plan

The Permittee must review and immediately amend, if necessary, the Contingency Plan as required by LAC 33:V.1513.D.

III.L.4. Emergency Coordinator

The Permittee must comply with the requirements of LAC 33:V.1513.E, and 322.B.6 concerning the emergency coordinator.

III.M. MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of LAC 33:V.Chapter 9 and 11.

III.N. RECORD KEEPING AND REPORTING

III.N.1. Operating Record

The Permittee shall maintain a written operating record at the facility in accordance with LAC 33:V.1529.A, B, and C.

III.N.2. Annual Report

The Permittee must comply with the annual report requirements of LAC 33:V.1529.D.

III.N.3. Operations Manual

The Permittee shall compile and keep current an operations manual covering all aspects of the Permittee's treatment, storage and disposal facilities.

III.O. POST-CLOSURE

III.O.1. Post-Closure Care

The Permittee must manage the Closed Hazardous Waste Pile in accordance with this permit, LAC 33:V. Chapter 35, Subchapter B, LAC 33:V.2315 and 2521.

III.O.2. Amendment to Post-Closure Permit

The Permittee must request modification to this Post-Closure Permit when necessary, in accordance with LAC 33:V.3523.D. and LAC 33:V.321.

III.O.3. Post-Closure Maintenance

After final closure, the Permittee must comply with all post-closure requirements contained in LAC 33:V.3519 through 3527, including maintenance and monitoring throughout the post-closure care period specified in the permit under LAC 33:V.3521.A.1. The Permittee must maintain all units in post-closure according to the requirements in Section V.B.

III.O.4. Post-Closure Restrictions

The Administrative Authority may require, at partial and final closure, continuation of any of the security requirements of LAC 33:V.1507, during part or all of the post-closure care period when access by the public or domestic livestock may pose a hazard to human health.

III.O.5. Post-Closure Property or Site Use

III.O.5.a. Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the permitted closed unit's monitoring systems, unless the Administrative Authority finds that the disturbance:

III.O.5.a.i. is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

III.O.5.a.ii. is necessary to reduce a threat to human health or the environment.

III.O.5.b. Any post-closure activity other than that specified in this permit must have prior approval of the Administrative Authority.

III.O.6. Post-Closure Contact

The Permittee must provide the name, address, and phone number of the person or office to contact about the permitted post-closure units during the post-closure care period.

III.O.7. Certification of Completion of Post-Closure Care

No later than sixty (60) days after completion of the established post-closure care period for the specified unit, the Permittee must submit to the Administrative Authority, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit(s) was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the Permittee and an independent registered professional engineer. Within 60 days after receipt of the certification, the Administrative Authority will notify the owner or operator that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the Administrative Authority has reason to believe that post-closure care was not conducted in accordance with the approved post-closure plan.

The certification of post-closure care shall include the certification statement found in the LAC 33:V.513.A or the current certification statement in the Louisiana hazardous waste regulations at the time of completion of post-closure care.

III.P. COST ESTIMATE FOR CARE OF THE POST-CLOSURE UNIT

- III.P.1.** The Permittee must maintain a cost estimate for the permitted closed unit and associated structures as required by LAC 33:V.3709.
- III.P.2.** The Permittee must maintain and adjust the post-closure cost estimate for inflation, as specified in LAC 33:V.3709.B, C, D, and for other circumstances that increase the cost of post-closure.
- III.P.3.** The Permittee must base all post-closure cost estimates on the assumption that a third party contractor performs post-closure monitoring and maintenance in accordance with LAC 33:V.3709.A.
- III.P.4.** The Permittee must consider the inventory and process conditions and their impact on the post-closure cost estimate for any resubmittal.

III.P.5. During the life of the facility, the Permittee must keep, at the facility, its latest post-closure cost estimates, as necessary, to comply with LAC 33:V.3709.D.

III.P.6. Throughout the active life of the facility, the Permittee must adjust and revise its post-closure cost estimates, as necessary, to comply with the provisions of LAC 33:V.3709.

III.Q. FINANCIAL ASSURANCE FOR THE POST-CLOSURE UNIT

Throughout the post-closure care period, the Permittee must provide updates for its financial assurance mechanisms, as necessary, to comply with the provisions of LAC 33:V.3711.

III.R. LIABILITY REQUIREMENTS

(Reserved)

III.S. INCAPACITY OF THE PERMITTEE

The Permittee must comply with LAC 33:V.3717 whenever bankruptcy is initiated for the Permittee or its institutions providing financial assurance. If insurance is used for compliance with LAC 33:V.3715, the Permittee must immediately notify the Administrative Authority if the insurance company is placed in receivership. The Permittee must establish other financial assurance or liability coverage within sixty (60) days after such an event.

III.T. POST-CLOSURE NOTICES

If the Permittee or any subsequent Permittee of the land upon which this hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner or contaminated soils, he must request a modification to the post-closure permit in accordance with the applicable requirements in LAC 33:V, Chapters 3 and 7. The Permittee must demonstrate that the removal of hazardous wastes will satisfy the criteria of LAC 33:V.3521. By removing hazardous waste, the Permittee may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of LAC 33:V, Subpart 1. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the Permittee may request that the Administrative Authority approve either:

III.T.1. the removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

III.T.2. the addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

IV. PERMITTED CLOSED UNITS

This permit is applicable only to the unit known as the Closed Hazardous Waste Pile located on the property of UOP, LLC, Blanchard, Caddo Parish, Louisiana. This unit is defined by the coordinates and dimensions on the map provided in Attachment 2. This permit also applies to any appurtenances associated with this unit. The appurtenances are defined as any run-on/run-off control systems, leachate collection/leak detection systems, tanks, and/or piping and instrumentation associated with the regulated unit. If any additional appurtenances are proposed in the future, they will be addressed through a permit modification as required by regulation and this permit.

V. PERMIT CONDITIONS APPLICABLE TO PERMITTED CLOSED UNITS

V.A. POST-CLOSURE CARE PERIOD

The post-closure care period will be in effect for the period of thirty (30) years following the date listed for the unit noted below. The post-closure care period will remain in effect unless extended or shortened by the Administrative Authority, as specified in LAC 33:V.3521.A, Length of Post-Closure.

V.A.1. Closed Hazardous Waste Pile: 10/25/85

V.B. POST-CLOSURE MAINTENANCE

After final closure, the owner or operator must comply with all post-closure requirements contained in LAC 33:V.3519 through 3527, Section III.O of this permit and the approved post-closure care plan. This shall include maintenance and monitoring throughout the post-closure care period specified in the permit under Section V.A and LAC 33:V.3521.A.1. The owner or operator must meet the following requirements.

V.B.1. For the permitted unit in post-closure, the Permittee must:

V.B.1.a. maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

V.B.1.b. maintain the final cover designed and constructed to:

V.B.1.b.i. function with minimal maintenance;

V.B.1.b.ii. promote drainage and minimize erosion or abrasion of the final cover;

V.B.1.b.iii. accommodate settling and subsidence, as necessary, so that the cover's integrity is maintained;

V.B.1.b.iv. have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

V.B.1.c. maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of LAC 33:V, Chapter 33;

V.B.1.d. manage and maintain a run-on and run-off control system to prevent erosion or other damage to the final cover.

VI. GROUNDWATER PROTECTION

VI.A. APPLICABILITY

The regulations of LAC 33:V, Chapters 3, 5, 15, 25, 33, 35, and 37, and Louisiana Hazardous Waste Control Law Revised Statute R.S., 30:2171 of the Environmental Quality Act, R.S., 30:2001 et seq., and the provisions of this section shall apply to groundwater protection programs at the permitted post-closure unit, property of UOP, LLC, located at the UOP Blanchard Facility, in Caddo Parish. **All requirements and conditions of this section must be satisfied and shall apply until the Administrative Authority has accepted the certification of completion of post-closure care required by regulation and under Section III.O.7 of this permit.** The unit referenced in Section IV of the permit is subject to post-closure groundwater monitoring.

If groundwater contamination is confirmed as a result of operations related to past or present hazardous waste management facilities associated with this site, the Permittee shall establish, expand or continue, assessment and corrective action programs in accordance with the requirements of LAC 33:V.Chapter 33 and as subsequently directed by the Administrative Authority.

VI.B. REQUIRED PROGRAMS

The Permittee must continue to conduct detection monitoring from the existing systems using all systems necessary to comply with monitoring programs specified herein.

All wells and any associated piezometers, as located on Attachment 2 and described in Table 1 and the approved Sampling and Analysis Plan referenced in Attachment 1 must be maintained, protected from moving equipment, and cannot be abandoned unless exempted from the program at a later date by the Administrative Authority, or unless the integrity of the well or piezometer is threatened. In such case it must be replaced with a new well, in conformance with a work plan approved by the Administrative Authority. The construction of groundwater monitoring wells must conform to the standards and guidelines specified in "**CONSTRUCTION OF GEOTECHNICAL BOREHOLES AND GROUNDWATER MONITORING SYSTEMS HANDBOOK**", dated May 1993 ("Construction Handbook", May 1993). This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245. Any required new wells should be installed within thirty (30) days of approval of the work plan by the Administrative Authority. Upon completion of new or replacement wells, a copy of DOTD-GW-1S, Louisiana Department of Transportation and Development Well Registration Short Form, is to be provided to the Administrative Authority. The entire groundwater monitoring system must be approved by the Administrative Authority. The Permittee must include in the Annual Report revised facility maps, which will show all its monitoring, assessment, compliance, and corrective action wells.

VI.C. GROUNDWATER PROTECTION STANDARD

- VI.C.1.** The Permittee must comply with conditions specified in this permit that are designed to insure that hazardous waste and hazardous waste constituents do not exceed the concentration limits (see Section VI.D) in the uppermost permeable zones underlying the waste management areas, beyond or below the points of compliance (see Section VI.E) during the compliance period (see Section VI.F). The protection standard does not exempt the Permittee from required corrective actions regarding contamination detected by wells not assigned as groundwater compliance points.
- VI.C.2.** The Permittee must utilize and maintain the present groundwater monitoring system described by the approved Sampling and Analysis Plan of this permit.
- VI.C.3.** The Permittee must also measure pH and specific conductance as standard indicators of groundwater contamination, which will be used to indicate well integrity and possible groundwater contamination. The results of these analyses must be recorded in the field logbook and interpreted.
- VI.C.4.** The Permittee must adhere to the Sampling and Analysis Plan referenced in Attachment 1.

VI.D. HAZARDOUS CONSTITUENTS, PARAMETERS, ANALYTICAL FREQUENCY AND CONCENTRATION LIMITS

The wells, hazardous constituents, concentration limits and sampling frequency to which the protection standards of LAC 33:V.3305 apply are shown in the approved Sampling and Analysis Plan referenced in Attachment 1 and in Section VI Tables 1, 2 and 3 herein.

The Permittee must continue existing corrective actions or institute corrective actions in all areas associated with the permitted post-closure unit and appurtenances where groundwater has been affected by hazardous wastes, hazardous constituents, or parameters exceeding the assigned concentration limits, and implement corrective measures in other areas which may be discovered to exceed these limits in the future.

The Permittee must notify the Administrative Authority in accordance with the schedule specified in Sections VI.H, VI.I, and VI.J, as applicable, when any of the groundwater monitoring parameters are detected in concentrations equal to or exceeding the designated limits at the points of compliance or upon first detection in any other monitoring well at the plant site.

VI.E. POINT OF COMPLIANCE

The point of compliance at which the groundwater protection standard of LAC 33:V.3305.A applies, and at which semi-annual monitoring must be conducted, are the vertical intervals intercepted by the wells identified in and required by Section VI.C.2, Table 1, and Attachment 2.

When contamination is detected in the uppermost permeable zone underlying the waste management area, the next vertical aquifer or permeable zone must also be monitored during compliance and corrective action periods. The horizontal limit of compliance must be the surface following an imaginary line connecting the risers of monitoring wells listed as Point of Compliance wells in Table 1 unless amended through permit modifications by the Administrative Authority in the future. The vertical limit of compliance must be the Uppermost Aquifer. Groundwater quality at each monitoring well identified above must be determined according to the approved Sampling and Analysis Plan and Section VI.C, unless subsequent contamination is detected as per LAC 33:V.3303, then monitoring must be conducted as per Sections VI.H, I and J of this permit.

Table 1. RCRA Units, Point of Compliance and Monitoring Wells, Sampling Frequencies, and Analytical Parameters

Unit Monitored	Well	Zone	Type	Sampling Frequency	Parameters ⁴
Closed Hazardous Waste Pile	MW-10	Uppermost Aquifer	MW ¹	Semi-Annually	<u>Detection Monitoring Parameters</u> 3-Nitroaniline 4-Nitroaniline 2-Nitrophenol 4-Nitrophenol Nitrobenzene 1-Chloro-2-Nitrobenzene 1-Chloro-3-Nitrobenzene 1-Chloro-4-Nitrobenzene Volatile Organic Compounds ³ (annually only)
	MW-07	Uppermost Aquifer	POC ²		<u>Groundwater Quality Parameters</u> pH Specific Conductance Turbidity Chloride Iron Manganese Phenols Sodium Sulfate Total Organic Carbon
	MW-08	Uppermost Aquifer	POC ²		
	MW-09	Uppermost Aquifer	POC ²		
	MW-13R	Uppermost Aquifer	POC ²		

¹ MW – Up-gradient monitoring well

² POC – Point of Compliance monitoring well

³ Volatile Organic Compounds as listed in Table 2 are monitored annually only

⁴ For an exact listing of the parameters, see Section VI.E, Table 2

Table 2. Groundwater Monitoring Methods and Requirements.

Parameters		Analytical Method ¹	Practical Quantitation (PQL) Limit ²	Trigger Level ³
Groundwater Quality Parameters (semi-annually)	pH	9040	Note ⁴	Note ⁴
	Specific Conductance	9050	Note ⁴	Note ⁴
	Total Organic Carbon	9060	Note ⁴	Note ⁴
	Chloride	9251	Note ⁴	Note ⁴
	Iron	6010	Note ⁴	Note ⁴
	Manganese	6010	Note ⁴	Note ⁴
	Sodium	6010	Note ⁴	Note ⁴
	Phenols	9065	Note ⁴	Note ⁴
	Sulfates	9038	Note ⁴	Note ⁴
	Turbidity	2130	Note ⁴	Note ⁴
Volatiles (annually)	Acetone	8260B	0.025 mg/l	0.1 mg/l
	Benzene	8260B	0.005 mg/l	0.005 mg/l
	Bromodichloromethane	8260B	0.005 mg/l	0.1 mg/l
	Bromoforn	8260B	0.005 mg/l	0.1 mg/l
	Bromomethane	8260B	0.005 mg/l	0.01 mg/l
	Carbon Disulfide	8260B	0.005 mg/l	0.1mg/l
	Carbon Tetrachloride	8260B	0.005 mg/l	0.005 mg/l
	Chlorobenzene	8260B	0.005 mg/l	0.1 mg/l
	Chlorodibromomethane	8260B	0.005 mg/l	0.1 mg/l
	Chloroethane	8260B	0.005 mg/l	0.01 mg/l
	Chloroform	8260B	0.005 mg/l	0.1 mg/l
	Chloromethane	8260B	0.005 mg/l	0.005 mg/l
	Dibromo-3-chloropropane, 1,2-	8260B	0.005 mg/l	0.0002 mg/l
	Dichloroethane, 1,1-	8260B	0.005 mg/l	0.081 mg/l
	Dichloroethane, 1,2-	8260B	0.005 mg/l	0.005 mg/l
	Dichloroethene (mixture), 1,1-	8260B	0.005 mg/l	0.007 mg/l
	Dichloroethene, cis, 1,2-	8260B	0.005 mg/l	0.07 mg/l
	Dichloroethene, trans, 1,2-	8260B	0.005 mg/l	0.1 mg/l
	Dichloropropane, 1,2-	8260B	0.005 mg/l	0.005 mg/l
	Dichloropropene cis, 1,3-	8260B	0.005 mg/l	0.005 mg/l
	Dichloropropene, trans, 1,3-	8260B	0.005 mg/l	0.005 mg/l
	Ethyl Benzene	8260B	0.005 mg/l	0.7 mg/l
	Hexanone, 2-	8260B	0.05 mg/l	0.2 mg/l
	Isobutyl Alcohol	8260B	0.05 mg/l	1.1 mg/l
	Methyl Ethyl Ketone	8260B	0.1 mg/l	0.19 mg/l
	Methyl Isobutyl Ketone	8260B	0.005 mg/l	0.05 mg/l
	Methylene Chloride	8260B	0.01 mg/l	0.005 mg/l
	MTBE (methyl tert-butyl ether)	8260B	0.005 mg/l	0.52 mg/l
	Styrene	8260B	0.005 mg/l	0.1 mg/l
	Tetrachloroethane, 1,1,1,2-	8260B	0.005 mg/l	0.005 mg/l
	Tetrachloroethane, 1,1,2,2-	8260B	0.005 mg/l	0.005 mg/l
	Tetrachloroethylene	8260B	0.005 mg/l	0.005 mg/l

Table 2. Groundwater Monitoring Methods and Requirements. (continued)

Parameters		Analytical Method ¹	Practical Quantitation (PQL) Limit ²	Trigger Level ³
Volatiles (annually)	Toluene	8260B	0.005 mg/l	1.0 mg/l
	Trichloroethane, 1,1,1-	8260B	0.005 mg/l	0.2 mg/l
	Trichloroethane, 1,1,2-	8260B	0.005 mg/l	0.005 mg/l
	Trichloroethene	8260B	0.005 mg/l	0.005 mg/l
	Trichlorofluoromethane	8260B	0.005 mg/l	0.13 mg/l
	Vinyl Acetate	8260B	0.005 mg/l	0.041 mg/l
	Vinyl Chloride	8260B	0.005 mg/l	0.002 mg/l
	Xylenes	8260B	0.01 mg/l	10 mg/l
Volatiles (semi-annually)	3-Nitroaniline	8270D	0.01 mg/l	0.010 mg/l
	4-Nitroaniline	8270D	0.01 mg/l	0.010 mg/l
	2-Nitrophenol	8270D	0.01 mg/l	0.010 mg/l
	4-Nitrophenol	8270D	0.01 mg/l	0.010 mg/l
	Nitrobenzene	8270D	0.01 mg/l	0.010 mg/l
	1-Chloro-2-Nitrobenzene	8270D	0.01 mg/l ⁵	0.0068 mg/l
	1-Chloro-3-Nitrobenzene	8270D	0.01 mg/l ⁵	0.0099 mg/l
	1-Chloro-4-Nitrobenzene	8270D	0.01 mg/l ⁵	0.0099 mg/l

¹ Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Third Edition (EPA Publication Number SW-846, 1986 as amended); must be in accordance with the latest edition of SW-846.

² The permittee must report to the Administrative Authority, any detectable level of compounds on Table 2, even if lower than the Practical Quantitation Limit (PQL). PQL denotes the lowest analyte concentration in a given matrix (groundwater) that the Administrative Authority believes a competent laboratory can be expected to achieve consistently. The Permittee must provide sufficient justification of a claim of matrix interference, which would justify basing a statistical change in groundwater quality for compounds above the PQL instead of using the published SW-846 method detection limit.

³ The trigger levels will be the Maximum Concentration Limits that apply to the groundwater protection standard under LAC 33:V.3305 unless changed through permit modification by the Administrative Authority. The groundwater protection standards were based upon the groundwater screening standards (GW SS) developed by the LDEQ Risk Evaluation Corrective Action Program (RECAP).

If technically feasible using Method SW-846 8270, the reported detection limit, either the PQL or the method detection limit (MDL), should be less than the calculated groundwater screening standards.

⁴ These parameters are only being used for qualitative groundwater evaluation with no statistical evaluation. As such, no specific PQL is required other than method consistency.

⁵ As determined by the Method Detection Limit Study

Table 3. Sample Bottle and Preservative Specifications.

Parameters	Container Type	Preservation Method
pH	Glass/plastic	Cool to 4° C
Specific Conductance	Glass/plastic	Cool to 4° C
Total Organic Carbon	Glass	H ₂ SO ₄ or HCl, to pH < 2, Cool to 4° C, Store in Dark
Turbidity	Glass/plastic	Cool to 4° C
Chloride	Glass/plastic	None Required
Sulfates	Glass/plastic	Cool to 4° C
Iron ¹	Glass/plastic	HNO ₃ to pH <2 and Cool to 4° C (Filter on-site only for analysis of dissolved metals) ¹
Manganese ¹	Glass/plastic	HNO ₃ to pH <2 and Cool to 4° C (Filter on-site only for analysis of dissolved metals) ¹
Sodium ¹	Glass/plastic	HNO ₃ to pH <2 and Cool to 4° C (Filter on-site only for analysis of dissolved metals) ¹
Phenols	Glass	H ₂ SO ₄ to pH < 2, Cool to 4° C
Semi-Volatiles (Table 2)	Glass	Cool to 4° C
Volatiles (Table 2)	Glass	Cool to 4° C HCl to pH < 2

¹ For total metals (the primary analysis) acidize, then cool to 4° C but do not filter. For dissolved metals, filter through a 0.45 micron filter and acidize to pH less than two (2) with HNO₃, then cool to 4° C. For total metals, acidize but do not filter. (See "US EPA RCRA Ground Water Monitoring Technical Enforcement Guidance Document, EPA 530/SW-86-005.")

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Table 4a

Semi-Annual Reporting Requirements

Parameter	Analysis	Frequency	Reporting	Graphical Representation	Interpreted/discussed	Statistically analyzed
Water elevations	Field	Every sampling event	In groundwater collection forms and Semi-Annual GW report	Potentiometric maps	Yes	Not required
Quality properties of groundwater sampled	Color, odor, remarks, etc.	Every sampling event	In groundwater collection forms, field log book, and Semi-Annual GW report	No	If necessary	Not required
pH	Field or lab	Every sampling event	In groundwater collection forms, field log book, and Semi-Annual GW report	pH, specific conductance, and TOC will be graphed value vs. time	Yes	Not required
Specific Conductance	Lab					
Total Organic Carbon	Lab	Every sampling event	In groundwater collection forms, field log book, and Semi-Annual GW report	pH, specific conductance, and TOC will be graphed value vs. time	Yes	Not required
Chloride	Lab	Every sampling event	Lab results reported in the Semi-Annual GW report	Not required	Yes	Not required
Iron						
Manganese						
Sodium						
Phenols						
Sulfate						
Turbidity						
3-Nitroaniline	Lab	Every Sampling Event	Lab results reported in the Semi-Annual GW report	Not required	Yes	Will be subject to demonstrations or evaluations regarding statistical significance of any parameter detections
4-Nitroaniline						
2-Nitrophenol						
4-Nitrophenol						
Nitrobenzene						
1-chloro-2-Nitrobenzene						
1-chloro-3-nitrobenzene						

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Table 4b

Annual Reporting Requirements

Parameter	Analysis	Frequency	Reporting	Graphical Representation	Interpreted/discussed	Statistically analyzed
Volatiles	Lab	Annual sampling	Concentrations reported in the Semi-Annual GW report	Not required	Yes	Will be subject to demonstrations or evaluations
Quality properties of the groundwater	Field	Every sampling event	Evaluated and reported every year	Not applicable	Will be evaluated, interpreted, and reported annually	Not applicable
Maintenance of Monitoring Equipment	Field	Every sampling event	Evaluated and reported every year			
Physical Well condition	Field	Every sampling event	Evaluated and reported every year			
Total depth measurements of the wells	Field	At least one a year	Total depth of each well will be measured at least annually and evaluated			
General Inspection Requirements – Maintenance of cover: grass control, erosion control & vegetation	Field	Semi-annually	Evaluated and reported every year			
Purge water collection	n/a	Every sampling event	Disposition of purge water reported every year			
QA/QC lab	n/a	Evaluated Annually	Evaluated and reported every year			
Financial Assurance	n/a	Evaluated Annually	Annually within 60 days prior to the anniversary date of the mechanism			

VI.F. COMPLIANCE PERIOD

The compliance period during which the groundwater protection standard of LAC 33:V.3305.A applies is until the Administrative Authority has accepted the certification of completion of post-closure care required by regulation and under Section III.O.7. of this permit. However, if a corrective action program has been implemented, the compliance period can not end until after the Permittee has demonstrated that the corrective action has been effectively implemented and the groundwater protection standard of LAC 33:V.3305.A has not been exceeded for a period of three (3) consecutive years.

VI.G. GENERAL REQUIREMENTS

- VI.G.1.** The Permittee's groundwater monitoring system for the previously identified hazardous waste management facilities must consist of all wells designated on Figure 1 and as required by Section VI.C.2, Table 1 above, unless changed in the future by the Administrative Authority through permit modification.
- VI.G.2.** Up-gradient wells must always yield groundwater samples from the uppermost water bearing zone that are representative of groundwater that has not been affected by possible leakage from the waste management units. Downgradient and vertical point of compliance wells must yield groundwater samples from the water bearing zones that represent the quality of groundwater beneath the facilities that flows to the points of compliance.
- VI.G.3.** The Permittee must maintain the structural and mechanical integrity of all wells and provide protection from accidental damage and surface infiltration, as well as implement a monitoring well inspection schedule. A written report on damage to any well must be submitted to the Administrative Authority in accordance with Section II.E.17 of this permit.
- VI.G.4.** The Permittee must conform to the sampling and analysis requirements listed in Sections VI.C, H, I, and J, herein, and as required by LAC 33:V.3315. A Semi-Annual Groundwater Monitoring Report must be prepared for each semi-annual sampling event and submitted to the Office of Environmental Assessment, Environmental Technology Division. Table 4a of this permit contains the required components for the Semi-Annual Groundwater Monitoring Reports.

VI.G.5. The Permittee must use one of the statistical procedures outlined in the approved facility Groundwater Statistical Evaluation Plan referenced in Attachment 1 or LAC 33:V.3315.H in determining whether background values or concentrations have been exceeded for the detection monitoring parameters contained in VI.C.2, Table 1. The groundwater quality parameters listed in VI.C.2, Table 1 do not require statistical evaluation but must be reported and graphically represented for each semi-annual sampling event.

VI.G.6. The Permittee must also tabulate or graphically represent the results of the detection monitoring parameters in the Semi-Annual Groundwater Monitoring Report prepared for each sampling episode. The detection monitoring parameters shall be subject to demonstrations or evaluations regarding the statistical significance of any parameter detection as described in the Groundwater Statistical Evaluation Plan (Attachment 1).

VI.G.7. Records of all sampling and analytical work must be maintained at the site during the life of the facilities, including post-closure care periods and made available upon request by the Administrative Authority.

VI.G.8. An annual groundwater report must be submitted each year no later than March 1, as required by LAC 33:V.1529.D.8. This report must summarize and interpret all groundwater activities for the preceding calendar year including an evaluation of the monitoring strategy in relation to the direction of groundwater flow and locations of wells associated with the facilities. Applicable calculations must also include groundwater flow contaminant migration rates (as applicable), statistical comparisons (as applicable), and any other information as it regards corrective actions required by this permit. Table 4b of the permit contains the required components of the annual groundwater report.

VI.H. DETECTION MONITORING PROGRAM

VI.H.1. Any downgradient wells that become contaminated, but eventually produce groundwater samples with analytical results below the permitted concentration limits for monitored constituents for at least three (3) years as the result of a corrective action program, may be re-scheduled for detection monitoring on a schedule approved by the Administrative Authority.

- VI.H.2.** The Permittee must utilize the existing groundwater detection monitoring system as required by LAC 33:V.3315 to obtain samples that provide a reliable indication of the presence of hazardous wastes or constituents in groundwater when compared to background values approved by the Administrative Authority.
- VI.H.3.** Detection systems shall be sampled according to the schedule specified in the Sampling and Analysis Plan. Within ninety (90) days after completing the analytical work and subsequent review of analyses and computations, the Permittee shall compile and submit the Semi-Annual Groundwater Monitoring Report to the Office of Environmental Assessment, Environmental Technology Division. The Semi-Annual Groundwater Monitoring Report must contain the test results, the statistical comparative data (as applicable), groundwater potentiometric maps, graphs, copies of the field log book notes and chain of custody where appropriate, and a list of the parameters that were statistically significant for the sampling event. This information shall be maintained at the site as provided in Section VI.G.7, except that statistically significant parameter measurements must be forwarded for review by the Administrative Authority in accordance with Section VI.H.5.
- VI.H.4.** The monitoring system outlined in Section VI.C.2 must be utilized for groundwater sampling.
- VI.H.5.** If the Permittee determines that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to LAC 33:V.3317.A at any monitoring well at the compliance point, the Permittee must do the following:
- VI.H.5.a.** Notify the Administrative Authority of this finding in writing within seven days. This notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.
 - VI.H.5.b.** Immediately sample the groundwater in all monitoring wells for confirmation and determine whether constituents listed in LAC 33:V.3325, Table 4 are present, and if so, in what concentration.
 - VI.H.5.c.** For any LAC 33:V.3325, Table 4 compounds found in the analysis pursuant to Section VI.H.5.b above, the Permittee may resample within one month and repeat the analysis for those compounds detected.

If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the Permittee does not resample for the compounds found pursuant to Section VI.H.5.b above, the hazardous constituents found during this initial analysis will form the basis for compliance monitoring. If contamination is not confirmed, the Permittee shall continue monitoring according to the schedule specified in the Sampling and Analysis Plan referenced in Attachment 1. The Permittee must address confirmed groundwater contamination problems at the direction of the Administrative Authority, regardless of the source of the contamination.

VI.H.6. The Permittee must submit an application for a permit modification to the Administrative Authority within ninety days from the date of the confirmation of contamination. The application must include:

VI.H.6.a. An identification of the concentration of any LAC 33:V.3325, Table 4 constituent detected in the groundwater at each monitoring well at the compliance point;

VI.H.6.b. Any proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of LAC 33:V.3319;

VI.H.6.c. Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of LAC 33:V.3319; and

VI.H.6.d. For each hazardous constituent detected (as defined in LAC 33:V.3301.A.1) at the compliance point, a proposed concentration limit under LAC 33:V.3309.

VI.H.7. If the Permittee determines that there is a statistically significant difference for analytical parameters of hazardous constituents, which are specified pursuant to the groundwater protection standard, listed in approved Sampling and Analysis Plan or Section VI.D at any monitoring well at the compliance point, the Permittee

may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater. The Permittee may make a demonstration under this Paragraph in addition to, or in lieu of, submitting a permit modification application; however, the Permittee is not relieved of the requirement to submit a permit modification application within the time specified in LAC 33:V.3317.G.4 unless the demonstration made under this Paragraph successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this Paragraph the Permittee must:

VI.H.7.a. Notify the Administrative Authority in writing within seven days of determining statistically significant evidence of contamination at the compliance point that he or she intends to make a demonstration under this Paragraph;

VI.H.7.b. Within 90 days, submit a report to the Administrative Authority that demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

VI.H.7.c. Within 90 days, submit to the Administrative Authority an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

VI.H.7.d. Continue to monitor in accordance with the detection monitoring program established under this permit.

VI.H.8. If the Permittee determines that the detection monitoring program no longer satisfies the requirements of this permit, the Permittee, within 90 days, shall submit an application for a permit modification to make any appropriate changes to the program.

VI.I. COMPLIANCE MONITORING

The Permittee must conduct a compliance monitoring program in accordance with LAC 33:V.3319 whenever hazardous waste constituents are confirmed in any monitoring well.

VI.I.1. The Permittee must determine the concentration of each hazardous constituent listed in the approved Sampling and Analysis Plan at least quarterly during compliance monitoring periods (from groundwater in the wells required by Section VI.C.2). At least annually the Permittee must analyze samples from all monitoring wells at the compliance points for all constituents listed in LAC 33:V.3325, Table 4, to determine whether additional hazardous constituents are present in the Uppermost Aquifer (and, if so, at what concentration), pursuant to procedures of this permit. If the Permittee finds LAC 33:V.3325, Table 4 constituents in the groundwater that are not already identified in the permit as monitoring constituents, the Permittee may re-sample within one month and repeat LAC 33:V.3325, Table 4 analysis. If the second analysis confirms the presence of new constituents, the Permittee must report the concentrations of these additional constituents to the Administrative Authority within seven days after the completion of the second analysis and add them to the monitoring list. If the Permittee chooses not to re-sample, then he or she must report the concentrations of these additional constituents to the Administrative Authority within seven days after completion of the initial analysis and add them to the monitoring list.

VI.I.2. If the Permittee determines, pursuant to LAC 33:V.3319.D, 3321.C, and Section VI.C that any concentration limits under LAC 33:V.3309 are being exceeded at any monitoring well at the point of compliance, he must:

VI.I.2.a. notify the Administrative Authority of this finding in writing within seven (7) days. The notification must indicate which concentration limits have been exceeded and list the contaminants and concentrations; and

VI.I.2.b. submit, to the Administrative Authority, an application for a permit modification to establish or modify corrective action programs meeting the requirements of LAC 33:V.3321 within 180 days, or within ninety (90) days if a certified engineering feasibility study has been previously submitted to the Administrative Authority under LAC 33:V.3317.G.5.b. The application must include the following information:

VI.I.2.b.i. a detailed description and schedule for assessment and corrective actions that will achieve compliance with the groundwater protection standard specified in Section I.D of this permit under LAC 33:V.3319.A; and

VI.I.2.b.ii. a geotechnical plan (certified by a qualified geologist or a geotechnical engineer) to demonstrate the effectiveness of the planned corrective actions. This plan may incorporate the compliance monitoring program developed to meet the requirements of this permit, except that the Permittee will be required to monitor as frequently as necessary (as required in Section VI.J.1) to assure that sufficient data will be generated for demonstrating the effectiveness of the corrective actions.

VI.I.2.c. If the Permittee determines, pursuant to LAC 33:V.3319.D, that the groundwater concentration limits under Section VI.D are being exceeded at any monitoring well at the point of compliance, he or she may demonstrate that a source other than a regulated unit caused the contamination, or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation, or natural variation in the groundwater. In making a demonstration under this Condition, the Permittee, must:

VI.I.2.c.i. notify the Administrative Authority in writing within seven days that he or she intends to make a demonstration under this condition;

VI.I.2.c.ii. within 90 days, submit a report to the Administrative Authority which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from an error in sampling, analysis or evaluation;

VI.I.2.c.iii. within 90 days, submit to the Administrative Authority an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

VI.I.2.c.iv. continue to monitor in accord with the compliance monitoring program established under this Permit.

VI.I.2.d. If the Permittee determines that the compliance monitoring program no longer satisfies the requirements of this permit, he or she must, within 90 days submit an application for a permit modification to make any appropriate changes to the program.

VI.J. CORRECTIVE ACTION PROGRAM

VI.J.1. If subsequent groundwater contamination is confirmed as a result of operations related to past or present hazardous waste management facilities identified in Section VI.A of this permit, the Permittee *must establish, expand, or continue any corrective action programs* in accordance with the requirements of LAC 33:V.3321 and as subsequently directed by the Administrative Authority. Water quality sampling, water level measurements and the general compilation of data to demonstrate the effectiveness of existing and new corrective action programs must be made on a quarterly basis until compliance with groundwater protection standards is achieved for at least three (3) years or until this requirement is terminated in writing by the Administrative Authority (after the data indicates adequate control of contaminant migration and concentration increases). The effectiveness of the corrective actions by the Permittee must be reported semi-annually to the Administrative Authority as stipulated in LAC 33:V.3321.G, and must include the following:

VI.J.1.a. a facility map showing all up-gradient, assessment, plume defining, point of compliance monitoring wells and recovery wells and identifying zones in which wells are screened;

VI.J.1.b. a table showing well number, well depth, screened interval, zone monitored, well diameter and screen and casing material for all up-gradient, assessment, plume defining, point of compliance monitoring wells, and recovery wells and the type of pump used if the well is a recovery well;

VI.J.1.c. a summary of analytical data for all up-gradient, assessment, plume defining, point of compliance monitoring wells, and recovery wells for the reporting period;

- VI.J.1.d.** a discussion of any significant changes in the analytical data from all up-gradient, assessment, plume defining, point of compliance monitoring wells, and recovery wells for the reporting period;
- VI.J.1.e.** contaminant concentration isopleths for each monitored zone and each contaminant;
- VI.J.1.f.** water level measurements and potentiometric surface maps for each monitored zone for the reporting period;
- VI.J.1.g.** total volume of liquids removed and the volume of contaminants removed for each component of the system (i.e. recovery wells, French drain systems, etc.) and cumulative amount for the entire system for the reporting period and total volume to date;
- VI.J.1.h.** a discussion of the down time for any well or part of the system for the reporting period and actions taken by the facility to return the system to normal operations and maximum efficiency;
- VI.J.1.i.** concentration versus time graphs for all wells used to determine the effectiveness of the contaminant recovery program; and
- VI.J.1.j.** a discussion of the effectiveness and progress of remedial activities.

VI.J.2. Additionally, and in accordance with the authority of the Louisiana Water Control Law R.S. 30:2071 of the Environmental Quality Act, R.S., 30:2001 et seq., and as allowed by LAC 33:V.309.L.7 pertaining to special conditions of the groundwater section of the permit, the Permittee must notify the Administrative Authority upon discovery of any additional discharge of any waste or waste constituent into the groundwaters of the State at the Permittee's plant site. As a result of such discharges to groundwaters the Permittee must:

- VI.J.2.a.** notify the Administrative Authority of the nature and circumstances of the discharge within seven (7) days of discovery;

VI.J.2.b. submit adequate plans and schedules, certified by a qualified geologist or geotechnical engineer, to evaluate the extent of the discharge and need for corrective actions within ninety (90) days from the notification in Section VI.J.2.a above; and

VI.J.2.c. submit a schedule and plans for corrective actions as directed by the Administrative Authority, within sixty (60) days from completion of the groundwater evaluation in Section VI.J.2.b above.

VI.K. ABANDONMENT OF MONITORING WELLS AND GEOTECHNICAL BOREHOLES

The Permittee must provide for the sealing of any vertical migration path resulting from exploratory boring, leachate collection or detection systems and/or groundwater monitoring programs as provided in LAC 33:V.3323, and follow abandonment procedures conforming to the standards and guidelines specified in "**CONSTRUCTION OF GEOTECHNICAL BOREHOLES AND GROUNDWATER MONITORING SYSTEMS HANDBOOK**", dated May 1993 ("Construction Handbook", May 1993). This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245. A work plan for the plugging and abandonment of a well must be submitted for approval by the Administrative Authority, whenever such migration pathways are discovered. Upon completion of well abandonment, a copy of DOTD-GW-2, Louisiana Department of Transportation and Development Well Plugging and Abandonment Form, must be submitted to the Administrative Authority.

VII. GENERAL CONDITIONS PURSUANT TO THE HAZARDOUS AND SOLID WASTE AMENDMENTS

VII.A. STANDARD CONDITIONS

VII.A.1. Waste Minimization

Annually, by March 1, for the previous year ending December 31, the Permittee shall enter into the operating record as required by LAC 33:V.1529.B.19, a statement certified according to LAC 33:V.513.A specifying that the Permittee has a program in place to reduce the volume and toxicity of hazardous wastes generated by the facility's operation to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or practicable disposal method that is currently available to the Permittee which minimizes the present and future threat to human health and the environment. A current description of the program shall be maintained in the operating record and a copy of the annual certified statement shall be submitted to the Administrative Authority. The following criteria should be considered for the program:

- VII.A.1.a.** Any written policy or statement that outlines goals, objectives, and/or methods for source reduction and recycling of hazardous waste at the facility;
- VII.A.1.b.** Any employee training or incentive programs designed to identify and implement source reduction and recycling opportunities;
- VII.A.1.c.** An itemized list of the dollar amounts of capital expenditures (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste;
- VII.A.1.d.** Factors that have prevented implementation of source reduction and/or recycling;
- VII.A.1.e.** Sources of information on source reduction and/or recycling received at the facility (e.g., local government, trade associations, suppliers, etc.);
- VII.A.1.f.** An investigation of additional waste minimization efforts that could be implemented at the facility. This investigation would analyze the potential for reducing the quantity and toxicity of each waste stream through production reformulation, recycling, and all other appropriate means. The analysis would include an assessment of the technical feasibility, cost, and potential waste reduction for each option;

- VII.A.1.g. A flow chart or matrix detailing all hazardous wastes the facility produces by quantity, type, and building/area;
- VII.A.1.h. A demonstration of the need to use those processes that produce a particular hazardous waste due to a lack of alternative processes or available technology that would produce less hazardous waste;
- VII.A.1.i. A description of the waste minimization methodology employed for each related process at the facility. The description should show whether source reduction or recycling is being employed;
- VII.A.1.j. A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years; and
- VII.A.1.k. The Permittee may meet the requirements for waste minimization by developing an Environmental Management System according to the EPA document, Integrated Environmental Management System Implementation Guide, EPA 744-R-00-011, October 2000, found on www.epa.gov/opptintr/dfe/pubs/iems/iems_guide/index.htm.

VII.A.2. Dust Suppression

Pursuant to LAC 33:V.4139.B.4, and the Toxic Substances Control Act, the Permittee shall not use waste or used oil or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

VII.A.3. Failure to Disclose

The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts at any time, may be cause for termination or modification of this Permit in accordance with LAC 33:323.B.2 and 3.

VII.A.4. Suspension, Modification, or Revocation and Reissuance, and Termination of Permit

This Permit may be modified, revoked and reissued, or terminated for cause as specified in LAC 33:V.323. The filing of a request by the Permittee for a permit modification, revocation and reissuance, termination, or the

notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition.

VII.A.4.a. If the Administrative Authority tentatively decides to modify or revoke and reissue a permit under LAC 33:V.321.C. or 323, a draft permit shall be prepared incorporating the proposed changes. The Administrative Authority may request additional information and, in the case of a modified permit, may require the submission of an updated permit application.

VII.A.4.b. The Permittee may initiate permit modification proceedings under LAC 33:V.321.C. All applicable requirements and procedures as specified in LAC 33:V.321.C shall be followed.

VII.A.4.c. Modifications of this Permit do not constitute a reissuance of the Permit.

VII.A.5. Permit Review

This Permit may be reviewed by the Administrative Authority five years after the date of permit issuance and may be modified as necessary as provided for in LAC 33:V.321.C. Nothing in this section shall preclude the Administrative Authority from reviewing and modifying the Permit at any time during its term.

VII.A.6. Compliance with Permit

Compliance with a RCRA permit during its term constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA except for those requirements not included in the permit which:

VII.A.6.a. Become effective by statute;

VII.A.6.b. Are promulgated under LAC 33:V.Chapter 22 restricting the placement of hazardous wastes in or on the land; or

VII.A.6.c. Are promulgated under LAC 33:V.Chapters 23, 25 and 29 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, construction quality assurance (CQA) programs, monitoring action leakage rates, and response action plans, and will be implemented through the procedures of LAC 33:V.321.C Class 1 permit modifications.

VII.A.7. Specific Waste Ban

- VII.A.7.a.** The Permittee shall not place in any land disposal unit the wastes specified in LAC 33:V. Chapter 22 after the effective date of the prohibition unless the Administrative Authority has established disposal or treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit.
- VII.A.7.b.** The Permittee may store wastes restricted under LAC 33:V. Chapter 22 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of LAC 33:V.2205 including, but not limited to, clearly marking each tank or container.
- VII.A.7.c.** The Permittee is required to comply with all applicable requirements of LAC 33:V.2245 as amended. Changes to the Waste Analysis Plan will be considered permit modifications at the request of the Permittee, pursuant to LAC 33:V.321.C.
- VII.A.7.d.** The Permittee shall review the waste analysis plan and analyze the waste when a process changes in order to determine whether the waste meets applicable treatment standards. Results shall be maintained in the operating record pursuant to Section III.C.1 and 2.

VII.A.8. Information Submittal for the Corrective Action Strategy

Failure to comply with any condition of the Permit, including information submittal, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of permit renewal application. Falsification of any submitted information is grounds for termination of this Permit (LAC 33:V.323.B.3).

The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Administrative Authority required by this Permit using the Corrective Action Strategy are signed and certified in accordance with LAC 33:V.Chapter 5, Subchapter B. A summary of the planned reporting requirements pursuant to the corrective action requirements of this Permit is found in Table 1 after section VIII. Five (5) copies each of these plans, reports, notifications or other submissions and one (1) electronic copy (3.5" IBM compatible disk or CD-ROM) of all portions thereof which are in word processing format shall be submitted to the Administrative Authority by Certified Mail or hand delivered to:

Louisiana Department of Environmental Quality
Office of Environmental Assessment
Environmental Technology Division
P.O. Box 4314
Baton Rouge, LA 70821-4314

All plans and reports required under the corrective action strategy must follow the guidelines for formatting and content found in the RECAP document to the extent practicable. Further guidance on formatting and content may be provided by the Administrative Authority, as deemed necessary.

VII.A.9. Plans and Schedules Incorporation Into Permit

All plans and schedules required by this Permit are, upon approval by the Administrative Authority, incorporated into this Permit by reference and become an enforceable part of this Permit. When applicable, the Permittee must modify the permit according to LAC 33:V. Chapter 3. Since required items are essential elements of this Permit, failure to submit any of the required items or submission of inadequate or insufficient information may subject the Permittee to enforcement action under Section 3008 of RCRA which may include fines, suspension, or revocation of the Permit. Also, where applicable the Permittee must meet all the permit modification requirements of LAC 33:V.321, 322 and 323.

Any noncompliance with approved plans and schedules shall be termed noncompliance with this Permit. Written requests for extensions of due dates for submittals may be granted by the Administrative Authority in accordance with LAC 33:I.1505.E.

If the Administrative Authority determines that actions beyond those provided for, or changes to what is stated herein, are warranted, the Administrative Authority may modify this Permit according to procedures in LAC 33:V.321.

VII.A.10. Data Retention

All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the facility during the term of this Permit, including any reissued Permits.

VII.A.11. Management of Wastes

All solid wastes which are managed pursuant to a remedial measure taken under the corrective action process or as an interim measure addressing a release or the threat of a release from a solid waste management unit shall

be managed in a manner protective of human health and the environment and in compliance with all applicable Federal, State and local requirements. As a response to the Louisiana legislature mandate La. R.S. 30:2272 (Act 1092 of the 1995 Regular Session) to develop minimum remediation standards, the LDEQ promulgated the Risk Evaluation Corrective Action Program (RECAP). RECAP's tiered approach to risk evaluation and corrective action establishes not only across the board numerical standards for most media, but also allows for the development of more site-specific numerical standards, as warranted. The Permittee is required to comply with all applicable requirements of RECAP. Approval of units for managing wastes and conditions for operating the units shall be granted through the permitting process.

VII.B. AA-BB AIR REGULATIONS

The Permittee must comply with the requirements of LAC 33:V.Chapter 17, as applicable. If the following information was not included in the Part B Permit Application pursuant to LAC 33:V.Chapter 17.Subchapter A and Subchapter B, within 90 days of the effective date of this Permit, the Permittee shall submit to the Administrative Authority a report covering those units subject to LAC 33:V.Chapter 17 which must contain, at minimum, the following information:

- VII.B.1.** An equipment list which includes all the information required under LAC 33:V.1743.B.1 for equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight, and a list of all process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous waste with organic concentrations of at least 10 percent by weight.
- VII.B.2.** For the process vents listed above, the amount of vent emissions in lb/hr or kg/hr, and in lb/yr or kg/yr.
- VII.B.3.** If the emissions of this section exceed the emission limits cited in LAC 33:V.1707.A.1, the report must detail the manner in which compliance will be obtained, i.e., by the reduction of total organic emissions to the limits in LAC 33:V.1707.A.1 or reduction by means of a control device per LAC 33:V.1707.A.2.
- VII.B.4.** If a closed-vent system and control device is installed to comply with the requirements in LAC 33:V.1707.B, provide the following information:
 - VII.B.4.a.** An implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation per LAC 33:V.1709.A.2.

VII.B.4.b. The type of control device under LAC 33:V.1709 to be installed (e.g., vapor recovery, flare, etc.).

VII.B.5. If the Permittee feels any of the requirements of this Section VII.B, or of LAC 33:V.Chapter 17, are not applicable to this facility, the Permittee must provide justification for this decision as part of the report.

VII.C. SPECIFIC CONDITION - CLOSURE

Pursuant to Section 3005(j)(1) of the Hazardous and Solid Waste Amendments of 1984, the Permittee shall close any closing units in accordance with the following provisions:

VII.C.1. Other than consolidation of any wastes from the sites in conformance with LAC 33:V.Chapter 22, Land Disposal Restrictions, the Permittee shall not place waste prohibited by LAC 33:V.Chapter 22 into any closing units;

VII.C.2. The Permittee shall perform unit closures in accordance with the Closure Plan(s) as approved at the time of closure, and which meet(s) all relevant State and Federal closure requirements at the time of closure; and

VII.C.3. The Permittee shall notify the Administrative Authority in writing at least 60 days prior to commencement of closure.

**HAZARDOUS
AND
SOLID
WASTE
AMENDMENTS**

VIII. SPECIAL CONDITIONS PURSUANT TO HAZARDOUS AND SOLID WASTE AMENDMENTS—CORRECTIVE ACTION STRATEGY

Corrective Action for Releases: Section 3004(u) of RCRA, as amended by the Hazardous and Solid Waste Amendments (HSWA), and LAC 33:V.3322 require that permits issued after November 8, 1984, address corrective action for releases of hazardous waste or hazardous constituents from any solid waste management unit (SWMU) at the facility, regardless of when the waste was placed in the unit.

EPA's traditional RCRA corrective action approach is structured around several elements common to most activities. In the first phase, RCRA facility assessment (RFA), EPA or the authorized state assesses the facility to identify releases and determine the need for corrective action. In the second phase, RCRA facility investigation (RFI), the facility conducts a more detailed investigation to determine the nature and extent of contaminants released to ground water, surface water, air, and soil. If remedial action is needed, a third phase, corrective measures study (CMS), is started. During this phase, the facility conducts a study, which when completed, describes the advantages, disadvantages, and costs of various cleanup options. After selection of a final remedy, the fourth phase, corrective measures implementation (CMI), is implemented. The facility is required to design, construct, operate, maintain, and monitor the final remedy(s).

The Corrective Action Strategy (CAS) is an alternate corrective action approach that can be implemented during any phase of corrective action. The Permittee shall use the CAS approach as the framework for corrective action, and shall use the RECAP for screening and media-specific cleanup standards.

VIII.A. ALTERNATE CORRECTIVE ACTION

VIII.A.1. This Permit will utilize the CAS Guidance Document (www.epa.gov/Arkansas/6pd/rcra_c/pd-o/riskman.htm) developed by the U.S. Environmental Protection Agency (EPA) Region 6 in order to accelerate corrective action at RCRA facilities. The CAS Guidance Document shall be utilized to the fullest extent practicable for planning and implementation of the corrective action. The CAS in this Permit shall not supersede existing Federal, State, and local regulations. The two primary objectives are to prioritize corrective action at the facility, and streamline corrective action administrative procedures, resulting in the protection of human health and the environment.

The CAS is a performance-based approach; using data quality objectives, investigations begin with the endpoint in mind. The CAS is a risk management strategy that can and will be implemented during any phase of corrective action. Performance standards are established at the beginning of the corrective action process, allowing earlier and more focused

implementation. Releases are screened using RECAP screening numbers to determine the priority of corrective action, and remedial alternatives are selected on the basis of their ability to achieve and maintain the established performance standards.

There is no one specific path through the CAS process. The CAS is a facility-wide approach, focusing corrective action on releases that pose the greatest risk first. Screening releases will also enable some areas of interest to qualify for no further action at this time (Section VIII.A.3.a.), thus resources can be used to best benefit the protection of human health and the environment.

The traditional RCRA corrective action process and reports (i.e., RFIs, CMSs, CMIs, etc.) are not elements of the CAS. However, the use of information and reports from the traditional corrective action process, if available, is encouraged, in addition to new site-specific information.

The Administrative Authority, through an agency-initiated permit modification, may remove the Corrective Action Strategy as the means of facility-wide corrective action in the case of the failure of the Permittee to disclose information, adhere to agreed schedules, or show adequate progress; or should an impasse occur between the Permittee and the Administrative Authority. The Administrative Authority will institute other means of corrective action (such as traditional corrective action) at the facility through modification of this permit.

VIII.A. 2. Performance Standards

Expectations for the outcome of corrective action at a facility are established in the CAS by three performance standards. The Permittee's proposed performance standards shall be presented during the scoping meeting. The Permittee must justify the proposed performance standards through evaluation and documentation of land use, ground water designation (current and reasonably expected future use), types of receptors present, exposure pathways, etc.; as described in RECAP, Chapter 2. Through the application of the performance standards and RECAP, the Permittee and Administrative Authority shall determine whether a release must be addressed through corrective action, and whether implemented corrective actions are protective of human health and the environment.

Within thirty (30) days following the scoping meeting, the Permittee will submit the performance standards in writing for approval. The Administrative Authority may either approve the performance standards proposed by the Permittee or establish performance standards that the Administrative Authority deems necessary to protect human health and the environment.

The three CAS performance standards are defined below. The order in which the performance standards are listed does not indicate that one performance standard takes priority over another. All applicable performance standards must be achieved by the Permittee.

VIII.A.2.a. Source Control Performance Standard

Source control refers to the control of materials that include or contain hazardous wastes or hazardous constituents that act as a reservoir for migration of contamination to soil, sediment, ground water, surface water, or air, or as a source for direct exposure.

The facility must determine if source material is present. Removal, containment, treatment, or a combination of the three, must be evaluated on a case-by-case basis. Controlling source material is a predominating issue in the CAS, and must be addressed to ensure protectiveness over time. Prioritization of the SWMUs does not mean avoidance of controlling source materials.

VIII.A.2.b. Statutory and Regulatory Performance Standard

Applicable statutory and regulatory requirements (Federal, State, and local) must be identified. These requirements may dictate media-specific contaminant levels (e.g., maximum contaminant levels (MCLs) in drinking water) that must be achieved and may become a performance standard for the Permittee.

VIII.A.2.c. Final Risk Goal Performance Standard

The final risk goal is the level of protection to be achieved and maintained by the Permittee. The final risk goal shall be based on site-specific issues including land use, special subpopulations, contaminant concentrations based on acceptable risk, location at which the levels are measured, and the remediation time frame, as specified by RECAP.

One final risk goal may apply to the entire facility, but it is more likely that different releases will require different final risk goals due to variations in location of releases, land use, proximity of receptors, etc. The final risk goal will be based on sound risk assessment methodologies (Permit section VIII.A.3).

VIII.A.3. Use of RECAP

The Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP), dated October 20, 2003 (or the latest edition referenced in LAC 33:1.Chapter 13) shall be used by the Permittee to determine the need for further corrective actions under this permit. The RECAP consists of a tiered framework comprised of a Screening Option (SO), and three Management Options (MO). The tiered management options allow site evaluation and corrective action efforts to be tailored to site conditions and risks. As the MO level increases, the approach becomes more site-specific and hence, the level of effort required to meet the objectives of the Option increases.

The RECAP shall be used by the Permittee to evaluate data quality and data usability (RECAP Section 2.4 and 2.5), to determine the identity of an area of investigation (AOI) as described in RECAP Section 2.6, and for estimations of Area of Investigation Concentrations and Groundwater Compliance Concentrations for each media as defined in RECAP Section 2.8.

The RECAP shall be used by the Permittee to evaluate land use as described in RECAP Section 2.9, and groundwater/aquifer use as described in RECAP Section 2.10.

The RECAP shall be used by the Permittee to prioritize area of concern (AOCs), SWMUs, and AOIs that require remediation so site investigations are focused on the release areas that pose the greatest risk. As the CSM is compiled, the Permittee shall assess historical data (RECAP Section 2.5) and use the following management options, as appropriate, to address each release site.

VIII.A.3.a. Use of the Screening Option - The Permittee shall use the Screening Standards (SS) which are LDEQ-derived screening numbers for soil and groundwater for non-industrial and industrial land use scenarios. The SS shall be

used to demonstrate that an AOI does not pose a threat to human health and the environment and, hence does not require further action at this time (NFA-ATT) or that further evaluation is warranted under a higher Management Option.

VIII.A.3.b. Use of Management Option 1 – The Permittee shall use Management Option 1 (MO-1) which provides a RECAP standard (RS) derived for non-industrial and industrial exposure scenarios using currently recommended default exposure parameters and toxicity values. Under MO-1, an AOI may warrant no further action at this time (NFA-ATT), or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-1 limiting RS, then the Permittee may; (1) remediate to the MO-1 limiting RS (and comply with closure/post closure requirements for MO-1), or (2) proceed with a MO-2 or MO-3 evaluation.

VIII.A.3.c. Use of Management Option 2 – The Permittee shall use Management Option 2 (MO-2) which provides for the development of soil and groundwater RS using site-specific data with specified analytical models to evaluate constituent fate and transport at the AOI. The results of this evaluation shall be used in conjunction with standard reasonable maximum exposure (RME) assumptions to identify site-specific MO-2 RS. Under MO-2, an AOI may warrant no further action at this time (NFA-ATT), or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-2 limiting RS, then the Permittee may; (1) remediate to the MO-2 limiting RS (and comply with closure/post closure requirements for MO-2), or (2) proceed with a MO-3 evaluation.

VIII.A.3.d. Use of Management Option 3 – The Permittee shall use Management Option 3 (MO-3) which provides the option of using site-specific data for the evaluation of exposure and the evaluation of environmental fate and transport at the AOI. The results of the site-specific evaluation may be to develop site-specific

MO-3 RS. Under MO-3, an AOI may warrant no further action at this time (NFA-ATT), or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-3 limiting RS, then the Permittee shall; (1) remediate to the MO-3 RS, (2) conduct confirmatory sampling, and (3) comply with closure/post closure requirements for MO-3.

VIII.A.4. Corrective Action for Releases Beyond Facility Boundary: Section 3004(v) of RCRA as amended by HSWA, and State regulations promulgated as LAC 33:V.3322.C require corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied.

VIII.A.5. Financial Responsibility: Assurances of financial responsibility for corrective action shall be provided by the Permittee as specified in Section VIII.J.4 of the Permit following major modification for remedy selection.

VIII.A.6. Summary of Corrective Action Activities: A summary of the corrective action activities associated with the facility is provided in Appendix 1 of Section VIII of this permit. AOCs and SWMUs that are currently being managed or proposed for management under a prescribed corrective action program (e.g., groundwater order, corrective action order, CERCLA) are identified in Section VIII, Table 3 of this permit.

VIII.B. PROJECT DEVELOPMENT AND SCOPING MEETING

VIII.B.1. Notice of Intent

To begin a Corrective Action Strategy (CAS) project, the Permittee must submit to the Administrative Authority a notice of intent to conduct corrective action using the CAS. The timing of the submission of the notification of intent may be determined at the discretion of the Administrative Authority. The notice of intent should state the following in a concise manner:

- VIII.B.1.a.** Commitment to conduct corrective action under a formal agreement (i.e., under this permit);
- VIII.B.1.b.** Request to conduct corrective action using the CAS;
- VIII.B.1.c.** General information regarding site location;
- VIII.B.1.d.** General information regarding the facility's operational history;
- VIII.B.1.e.** General discussion on how the Permittee will proceed through the CAS;
- VIII.B.1.f.** Brief description of proposed performance standards for corrective action; and
- VIII.B.1.g.** Request for a scoping meeting between the Permittee and the Administrative Authority.

VIII.B.2. The scoping meeting will serve as the first CAS milestone where the Permittee and the Administrative Authority identify expectations concerning CAS implementation. The length and extent of the meeting will depend on the complexity of the site. Agreements on land use, groundwater classification, and expectations for remediation goals will be discussed during the scoping meeting(s). During the scoping meeting the Permittee should present the following information to the Administrative Authority:

- VIII.B.2.a.** Preliminary conceptual site model;
- VIII.B.2.b.** Discussions on history of corrective action at the facility, including site investigations, risk evaluations or risk assessments, interim measure/stabilizations and final remedies implemented;
- VIII.B.2.c.** Proposed performance standards for the facility with justification, and potential risk management approaches;
- VIII.B.2.d.** Discussions on how the Permittee plans to use the CAS to meet its corrective action obligations, including permitting and compliance issues;

- VIII.B.2.e.** Communication strategy (i.e., how the Permittee and Administrative Authority will share information about the site);
- VIII.B.2.f.** Site-specific concerns (i.e., sensitive environments or special subpopulations);
- VIII.B.2.g.** Need for interim measures or stabilization activities, if necessary;
- VIII.B.2.h.** Schedule for submittal of the CAS work-plan and proposed schedule for conducting and completing CAS requirements, including public participation; and
- VIII.B.2.i.** A plan for dissemination of information to the public regarding site investigation activities and results prepared in accordance with the guidelines in LAC 33:V. Chapter 7 to be submitted to the Administrative Authority for review and approval. The plan must allow for public comment at critical junctures of the CAS process (e.g., during agreement on performance standards, remedy proposals, and closeout).

Unless otherwise specified by the Administrative Authority, the scoping meeting will be held at the facility.

The Administrative Authority will either approve the performance standards proposed by the Permittee or establish performance standards that the Administrative Authority deems necessary to protect human health and the environment. Since approved performance standards are to be part of the final remedy(s), public participation shall be implemented at this time.

VIII.C. REPORTING REQUIREMENTS

- VIII.C.1.** The Permittee shall submit, in accordance with Section VII.A.8, signed reports of all activities (e.g., RER, RMP) conducted pursuant to the provisions of this Permit beginning upon notification by the Administrative Authority. The reporting schedule shall be determined on a case by case basis by the Administrative Authority. These reports shall contain the information required by CAS, as well as the following:

- VIII.C.1.a. A description of the work completed and an estimate of the percentage of work completed;
 - VIII.C.1.b. Summaries of all findings, including summaries of laboratory data;
 - VIII.C.1.c. Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;
 - VIII.C.1.d. Projected work for the next reporting period;
 - VIII.C.1.e. Summaries of contacts pertaining to corrective action or environmental matters with representatives of the local community, public interest groups or State government during the reporting period;
 - VIII.C.1.f. Changes in key project personnel during the reporting period; and
 - VIII.C.1.g. Summaries of all changes made in implementation during the reporting period.
- VIII.C.2. Copies of other reports relating to or having bearing upon the corrective action work (e.g., inspection reports), drilling logs and laboratory data shall be made available to the Administrative Authority upon request.
- VIII.C.3. In addition to the written reports as required in Section VIII.C.1 and VIII.C.2. above, at the request of the Administrative Authority, the Permittee shall provide status review through briefings with the Administrative Authority.
- VIII.C.4. The determination and approval of remedy selections, schedules of submittals and minor changes to any corrective action work-plans may be made by the Administrative Authority during scoping or status review briefings as described in Section VIII.C.3.

VIII.D.

SPECIFIC CONDITION – CONCEPTUAL SITE MODEL

At the discretion and within the time frame specified by the Administrative Authority, the Permittee shall submit to the Administrative Authority a preliminary Conceptual Site Model (CSM) which will cover background information and current conditions at the facility. At the discretion of the Administrative Authority, the CSM may be required for on-going corrective action or for newly identified SWMU(s) or AOC(s) according to Section VIII.L of this permit (See Appendix 1, Ongoing Corrective Action). **Any requirements for a CSM would be specified in Appendix 1 and Table 1 of the HSWA Section by the Administrative Authority.**

The CSM shall consider and identify all data gaps. The CSM shall identify the known or potential constituent source(s) (primary as well as secondary and tertiary sources if applicable), routes of constituent migration, exposure media, exposure points and pathways, receptors and source media to be evaluated under the RECAP. The CSM shall be considered as the "base document" to be prepared and updated by the facility as new information is gathered during investigations. The CSM shall be used by the facility to make decisions regarding risk management options, ecological risk, and monitored natural attenuation determinations (RECAP Section 2.12), or technical impracticability (TI) waiver determinations, when appropriate. The CSM shall be divided into Profiles as listed below.

VIII.D.1. Facility Profile

The Permittee shall include in the CSM a Facility Profile which shall summarize the regional location, pertinent boundary features, general facility structures, process areas, and locations of solid waste management units or other potential sources of contaminant migration from the routine and systematic releases of hazardous constituents to the environment (e.g., truck or railcar loading/unloading areas). The Permittee shall also include historical features that may be potential release areas because of past waste management practices. The Facility Profile shall include:

VIII.D.1.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.1.a.(1) General geographic location;

VIII.D.1.a.(2) Property lines with the owners of all adjacent property clearly indicated;

VIII.D.1.a.(3) Facility structures, process areas and maintenance areas;

VIII.D.1.a.(4) Any other potential release areas shall be delineated, such as railcar loading/unloading areas or any other AOI as described in RECAP Section 2.6; and

VIII.D.1.a.(5) Locations of historical features that may be potential release areas or any areas of past solid and hazardous waste generation, treatment, storage or disposal activities.

VIII.D.1.b. The Facility Profile shall also include a description of ownership and operation of the facility.

VIII.D.1.c. Approximate dates or periods of past waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, federal, or private party response units), including any inspection reports or technical reports generated as a result of the response.

VIII.D.2. Land Use and Exposure Profile

The Permittee shall include in the CSM a Land Use and Exposure Profile which includes surrounding land uses (industrial and non-industrial, as described in RECAP Sections 2.9.1 and 2.9.2), resource use locations (water supply wells, surface water intakes, etc.), beneficial resource determinations (groundwater classifications as described in RECAP Section 2.10), natural resources (wetlands, etc.), sensitive subpopulation types and locations (schools, hospitals, nursing homes, day care centers, etc.), applicable exposure scenarios,

and applicable exposure pathways identifying the specific sources, releases, migration mechanisms, exposure media, exposure routes and receptors. The Land Use and Exposure Profile shall include:

VIII.D.2.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.2.a.(1) Surrounding land uses, resource use locations, and natural resources/wetlands;

VIII.D.2.a.(2) Locations of sensitive subpopulations; and

VIII.D.2.a.(3) An exposure pathway flowchart which outlines sources, migration pathways, exposure media and potential receptors as depicted in Figure 8 (Conceptual Model Example) of RECAP.

VIII.D.3. Physical Profile

The Permittee shall include in the CSM a Physical Profile which shall describe the factors that may affect releases, fate and transport, and receptors, including; topography, surface water features, geology, and hydrogeology. The Physical Profile shall include:

VIII.D.3.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V.Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.3.a.(1) Topographic maps with a contour interval of five (5) or ten (10) feet, a scale of one inch to 100 feet (1:100), including hills, gradients, and surface vegetation or pavement;

VIII.D.3.a.(2) Surface water features including routes of all drainage ditches, waterways, direction of flow, and how they migrate to other surface water bodies such as canals and lakes;

VIII.D.3.a.(3) Regional geology including faulting and recharge areas, as well as local geology depicting surface features such as soil types, outcrops, faulting, and other surface features;

VIII.D.3.a.(4) Subsurface geology including stratigraphy, continuity (locations of facies changes, if known), faulting and other characteristics;

VIII.D.3.a.(5) Maps with hydrogeologic information identifying water-bearing zones, hydrologic parameters such as transmissivity, and conductivity. Also locations and thicknesses of aquitards or impermeable strata; and

VIII.D.3.a.(6) Locations of soil borings and production and groundwater monitoring wells, including well log information, and construction of cross-sections which correlate substrata. Wells shall be clearly labeled with ground and top of casing elevations (can be applied as an attachment).

VIII.D.4. Release Profile

The Permittee shall include in the CSM a Release Profile which shall describe the known extent of contaminants in the environment, including sources, contaminants of concern (COC), areas of investigations, distribution and magnitude of known COCs with corresponding sampling locations, and results of fate and transport modeling depicting potential future extent/magnitude of COCs. The Release Profile shall include:

VIII.D.4.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V. Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.4.a.(1) Estimations of source concentrations, exposure concentrations and compliance concentrations for each affected media as defined in Section 2.8 of RECAP;

VIII.D.4.a.(2) Isopleth maps depicting lateral extent and concentrations of COCs;

VIII.D.4.a.(3) Results of fate and transport modeling showing potential exposure concentrations and locations; and

VIII.D.4.a.(4) Locations of potential sources including past or present waste units or disposal areas and all SWMUs.

VIII.D.4.b. Table(s) depicting the following information. Unit/disposal area characteristics, including but not limited to: location of unit/disposal area; type of unit/disposal area; design features; operating practices (past and present); period of operation; age of unit/disposal area; general physical condition; and method used to close the unit/disposal area.

VIII.D.4.c. Table(s) depicting waste characteristics, including but not limited to: type of waste placed in the unit (hazardous classification, quantity, chemical composition), physical and chemical characteristics (physical form, description, temperature, pH, general chemical class, molecular weight, density, boiling point, viscosity, solubility in water, solubility in solvents, cohesiveness, vapor pressure); and migration and dispersal characteristics of the waste (sorption coefficients, biodegradability, photodegradation rates, hydrolysis rates, chemical transformations).

VIII.D.5. Ecological Profile

The Permittee shall include in the CSM an Ecological Profile that shall describe the physical relationship between the developed and undeveloped portions of the facility, the use and level of disturbance of the undeveloped property, and the type of ecological receptors present in relation to completed exposure pathways. When compiling data for the Ecological Profile, current as well as future impacts to receptors and/or their habitats shall be considered. The Ecological Profile shall include:

- VIII.D.5.a.** A history and description of the developed property on the facility, including structures, process areas, waste management units, and property boundaries.
- VIII.D.5.b.** A history and description of the undeveloped property, including habitat type (wetland, grassy area, forest, ponds, etc.). Include a description of the primary use, degree and nature of any disturbance, along with proximity to drainage ditches, waterways and landfill areas.
- VIII.D.5.c.** A description of the site receptors in relation to habitat type, including endangered or protected species, mammals, birds, fish, etc.
- VIII.D.5.d.** A description of the relationship between release areas and habitat areas, specifically relating chemicals of potential ecological concern (COEC) to ecological receptors.
- VIII.D.5.e.** An ecological checklist as described in Section 7.0 of RECAP. An ecological checklist (presented in Appendix C, Form 18 of the RECAP) shall be used to determine if a tier 1 (screening level) Ecological Risk Assessment (ERA) is warranted.

VIII.D.6. Risk Management Profile

The Permittee shall include in the CSM a Risk Management Profile that shall describe how each AOI at the facility will be managed for the protection of human health and the environment. The Risk Management Profile will serve as documentation of the results of the site ranking system (described in Section 2.2 of RECAP). The Risk Management Profile will also document the criteria and verify that the SO, MO-1, MO-2 or MO-3 is appropriate for application at each AOI. The Risk Management Profile shall include:

- VIII.D.6.a.** A table for tracking the management options for each AOI, and the determination made, whether an AOI is deemed for no further action (NFA) or is going to use either the SO, MO-1, MO-2 or MO-3 management option.
- VIII.D.6.b.** A list of identified site-wide data gaps for further investigation.

- VIII.D.6.c.** Documentation of all interim measures which have been or are being undertaken at the facility, including under State or Federal compliance orders, other than those specified in the Permit. This documentation shall include the objectives of the interim measures and how the measure is mitigating a potential threat to human health or the environment and/or is consistent with and integrated into requirements for a long term remedial solution.

VIII.E. INTERIM MEASURES

- VIII.E.1.** If during the course of any activity initiated under this Permit, the Administrative Authority determines that a release or potential release of hazardous constituents from a SWMU poses a threat to human health and the environment, the Administrative Authority may require interim measures. The Administrative Authority shall determine the specific measure(s) or require the Permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and a written plan. The Administrative Authority may modify this Permit according to LAC 33:V.321 to incorporate interim measures into the Permit. However, depending upon the nature of the interim measure, a permit modification may not be required.
- VIII.E.2.** The Permittee may propose interim measures at any time. The proposal shall include a written plan and a schedule for implementation.
- VIII.E.3.** The Administrative Authority may determine the need for an interim measure at any time during the corrective action process. The Administrative Authority shall notify the Permittee in writing of the requirement to perform an interim measure. The following factors will be considered by the Administrative Authority in determining the need for interim measures and the need for permit modification:
- VIII.E.3.a.** Time required to develop and implement a final remedy;
 - VIII.E.3.b.** Actual and potential exposure to human and environmental receptors;
 - VIII.E.3.c.** Actual and potential contamination of drinking water supplies and sensitive ecosystems;
 - VIII.E.3.d.** The potential for further degradation of the medium in the absence of interim measures;

- VIII.E.3.e. Presence of hazardous wastes in containers that may pose a threat of release;
- VIII.E.3.f. Presence and concentration of hazardous waste including hazardous constituents in soil that have the potential to migrate to ground water or surface water;
- VIII.E.3.g. Weather conditions that may affect the current levels of contamination;
- VIII.E.3.h. Risks of fire, explosion, or accident; and
- VIII.E.3.i. Other situations that may pose threats to human health and the environment.

VIII.E.4. Upon approval of the Interim Measure(s) work-plan and completion of the Interim Measure implementation, the Permittee will submit a report to the Administrative Authority describing the completed work..

VIII.E.5. At anytime during or after the Interim Measures, including the issuance of an NFA-ATT, the Administrative Authority may require the Permittee to submit the SWMU(s) for further corrective action.

VIII.F. CAS (CORRECTIVE ACTION STRATEGY) WORK-PLAN

VIII.F.1. The CAS work-plan that describes site investigation activities for corrective action shall be submitted to the Administrative Authority within 180 calendar days after the scoping meeting between the Permittee and the Administrative Authority. The CAS work-plan must address releases of hazardous waste or hazardous constituents to all media, unless otherwise indicated in Table 2, for those SWMUs listed in Table 2. The focus of the site investigation phase for corrective action is to collect data to fill in data gaps identified in the CSM. The corrective action investigations may be conducted in phases if warranted by site conditions, contingent upon approval by the Administrative Authority.

VIII.F.1.a. The CAS work-plan shall describe the management options (MO) for each AOI/release area, data quality objectives for achieving each management option, and proposals for release characterizations (sampling and analysis/quality assurance plans) to support the data quality objectives (DQO's). (DQOs are determined based on the end use of the data to be collected, and the DQO development process should be integrated into project planning and refined throughout the CAS implementation. DQOs shall be used to 1) ensure that

environmental data are scientifically valid, defensible, and of an appropriate level of quality given the intended use, and 2) expedite site investigations. The CAS Work Plan is required to have DQOs that are developed to support the performance standard for each release.) The CAS work-plan shall detail all proposed activities and procedures to be conducted at the facility, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the site investigations. The scope of work for the site investigation can be found in RECAP Appendix B.

VIII.F.1.b. The CAS work-plan shall describe sampling, data collection quality assurance, and data management procedures, including formats for documenting and tracking data and other results of investigations, and health and safety procedures.

VIII.F.1.c. Development of the CAS work-plan and reporting of data shall be consistent with the following EPA and State guidance documents or the equivalent thereof:

VIII.F.1.c.(1) Guidance for the Data Quality Assessment, Practical Methods for Data Analysis. QA97 Version EPA QA/G-9. January 1998;

VIII.F.1.c.(2) Guidance for the Data Quality Objectives Process. EPA QA/G-4. September 1994;

VIII.F.1.c.(3) Data Quality Objectives Remedial Response Activities. EPA/540/G87-003. March 1987;

VIII.F.1.c.(4) Guidance on Quality Assurance Project Plans. EPA QA/G-5. February 1998;

VIII.F.1.c.(5) Interim EPA Data Requirements for Quality Assurance Project Plans. EPA Region 6, Office of Quality Assurance. May 1994;

VIII.F.1.c.(6) 29 CFR 1910.120 (b) for the elements to Health and Safety plans;

VIII.F.1.c.(7) RCRA Groundwater Monitoring: Draft Technical Guidance EPA/530-R-93-001 November 1992;

VIII.F.1.c.(8) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods; SW-846, 3rd Edition. November 1992, with revisions;

VIII.F.1.c.(9) LDEQ Handbook - Construction of Geotechnical Boreholes and Groundwater Monitoring Systems," prepared by the LDEQ and the Louisiana Department of Transportation and Development, dated May, 1993. This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245; and

VIII.F.1.c.(10) LAC 33:I. Chapter 13 and Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP), October 20, 2003 with revisions.

VIII.F.2. After the Permittee submits the CAS work-plan, the Administrative Authority will either approve, disapprove, or otherwise modify the CAS work-plan in writing.

If the Administrative Authority approves the work-plan, the Permittee shall begin implementation of the plan within two weeks (14 days) of receipt of approval, and implement it according to the schedule contained in the plan. All approved work-plans become incorporated into this Permit in accordance with Section VII.A.9.

In event of disapproval (in whole or in part) of the work-plan, the Administrative Authority shall specify deficiencies in writing. The Permittee shall modify the CAS work-plan to correct these within the time frame specified in the notification of disapproval by the Administrative Authority. The modified work-plan shall be submitted in writing to the Administrative Authority for review. Should the Permittee take exception to all or part of the disapproval, the Permittee shall submit a written statement of the ground for the exception within 10 days of receipt of the disapproval.

- VIII.F.3.** The Administrative Authority shall review for approval as part of the CAS work-plan or as a new work-plan any plans developed pursuant to Section VIII.L. Further investigations of new releases from previously-identified SWMUs or AOIs, shall be addressed in accordance with Section VIII.M.

VIII.G. IMPLEMENTATION OF SITE INVESTIGATION ACTIVITIES UNDER CAS

No later than (14) calendar days after the Permittee has received written approval from the Administrative Authority for the CAS work-plan, the Permittee shall implement the site investigation activities according to the schedules and in accordance with the approved CAS work-plan and the following:

- VIII.G.1.** The Permittee shall notify Administrative Authority at least 10 days prior to any field sampling, field-testing, or field monitoring activity required by this Permit to give LDEQ personnel the opportunity to observe investigation procedures and/or split samples.
- VIII.G.2.** Deviations from the approved CAS work-plan, which are necessary during implementation, must be approved by the Administrative Authority and fully documented and described in the progress reports (Section VIII.C.) and the final Risk Management Plan, Section VIII.J.

VIII.H. RISK EVALUATION REPORT

Within ninety (90) days after completion of the site investigation, the Permittee shall submit a Risk Evaluation Report (RER) to the Administrative Authority for approval. The Risk Evaluation Report shall document the results of the site investigation activities, and the evaluation of the impacts from releases. If the Administrative Authority determines the Risk Evaluation Report does not fully meet the objectives stated in the CAS work-plan (Section VIII.F.), the Administrative Authority shall notify the Permittee in writing of the report's deficiencies, and specify a due date for submittal of a revised Final Report to the Administrative Authority.

- VIII.H.1.** The Permittee shall screen site-specific data using the appropriate RECAP standard (RS) for each AOI (depending on the MO), evaluate impacts from releases with exposure scenario evaluations, and update the Risk Management Profile of the CSM.
- VIII.H.2.** The report shall include, but not be limited to, the following:
- VIII.H.2.a.** Documentation of site investigation activities and results;
 - VIII.H.2.b.** Evaluation of exposure scenarios to document impacts from releases;

- VIII.H.2.c.** Results of screening activities using RECAP standards (RS), including SO, MO-1, MO-2, or MO-3 RS for each media;
- VIII.H.2.d.** The revised CSM with updated profiles which incorporate investigation and screening results; and
- VIII.H.2.e.** Proposed revisions to performance standards based on new information (e.g., change in land use, difference in expected receptors and/or exposure, or other differences in site conditions), if warranted.

VIII.I. REMEDY EVALUATION/SELECTION

Upon completion and approval of the Risk Evaluation Report, the Permittee shall proceed with the evaluation of remedial alternatives to complete corrective action for each AOI. Remediation standards for each AOI are described in Permit sections VIII.A.2.a. - VIII.A.2.c. The remedy selections will be presented to the Administrative Authority in the Risk Management Plan.

- VIII.I.1.** The Permittee shall select remedies for each AOI that shall:
 - VIII.I.1.a.** attain compliance with corrective action objectives for releases of hazardous waste and/or hazardous constituents, as established in the Conceptual Site Model or in later investigations approved by the Administrative Authority;
 - VIII.I.1.b.** control sources of releases;
 - VIII.I.1.c.** meet acceptable waste management requirements; and
 - VIII.I.1.d.** protect human health and the environment.
- VIII.I.2.** The Permittee shall evaluate the use of presumptive remedies and innovative technologies to achieve the appropriate remediation standards for each AOI.
- VIII.I.3.** The Permittee shall review the current interim measures/ stabilization activities to evaluate if these measures meet all the criteria for final remedy.
- VIII.I.4.** If under certain site-specific conditions, or when it is not technically or economically feasible to attain the corrective action objectives, the Permittee may propose to use institutional controls to supplement treatment or containment-based remedial actions upon approval of the Administrative Authority (Section 2.15 of RECAP).

- VIII.I.5.** The Permittee shall propose corrective action remedies in accordance with Chapter IV of the RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3 -2A.

VIII.J. RISK MANAGEMENT PLAN

After the evaluation of remedial alternatives, the remedy selections shall be documented in the Risk Management Plan and Summary. The plan shall be submitted within sixty (60) days of approval of the Risk Evaluation Report.

- VIII.J.1.** The Risk Management Plan shall at a minimum include:

- VIII.J.1.a.** A summary of the remedial alternatives for each AOI and the rationale used for remedy selection;
- VIII.J.1.b.** The final conceptual site model (CSM) with remedies, including locations of AOIs addressed by a risk management activity, constituent of concern (COC) concentrations that represent the long-term fate and transport of residual COC's and the exposure pathways affected by the risk management activity;
- VIII.J.1.c.** Cost estimates and implementation schedules for final remedies;
- VIII.J.1.d.** Remedy design and implementation precautions, including special technical problems, additional engineering data required, permits and regulatory requirements, property access, easements, and right-of-way, special health and safety requirements, and community relations activities;
- VIII.J.1.e.** Remedy performance criteria and monitoring:

The Permittee shall identify specific criteria (such as land use changes, fate and transport model verification and constructed remedy performance) that will be evaluated to demonstrate that the risk management activity implemented will remain protective. A schedule for periodic performance review (such as monitoring data summaries, possibly including graphical and statistical analyses) shall be established to demonstrate that the implemented activities are consistently achieving and maintaining desired results.

Further, a mechanism shall be established to re-evaluate risk management activities in the event the implemented action does not achieve and maintain the performance standards;

VIII.J.1.f. Contingency plans; and

VIII.J.1.g. Description and schedules for performance reviews.

VIII.J.2. After the Permittee submits the Risk Management Plan and Summary, the Administrative Authority will either approve or disapprove them in writing. Should the Permittee take exception to the disapproval, decision, or directive, the Permittee shall notify the Administrative Authority in writing.

VIII.J.3. If the Administrative Authority determines the Risk Management Plan and Summary do not fully meet the remedial objectives, the Administrative Authority may disapprove the Risk Management Plan and Summary. In addition, the Administrative Authority may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies. If the Administrative Authority disapproves the report, the Administrative Authority shall notify the Permittee in writing of the report's deficiencies and specify a due date for submittal of a revised Final Risk Management Plan and Summary.

VIII.J.4. Within thirty (30) calendar days after approval of the Risk Management Report and Summary, the Administrative Authority shall initiate modification of the Permit according to LAC 33:V.321.C, for remedy selection, based on the approved Risk Management Report. The resultant modified permit will include schedules for remedy implementation.

VIII.K. DETERMINATION OF NO FURTHER ACTION

VIII.K.1. Based on the results of the site investigations, screening, risk evaluations and risk management activities, the Permittee may submit an application to the Administrative Authority for a Class 3 permit modification under LAC 33:V.321.C.3. to terminate further corrective action for a specific unit. This permit modification application must contain information demonstrating that there are no releases of hazardous constituents from a particular SWMU at the facility that pose threats to human health and/or the environment, as well as additional information required in LAC 33:V.321.C.3.

The basis for the determination of no further action shall follow the guidelines as described in the RECAP for each AOI, depending on the MO used.

If, based upon review of the Permittee's request for a permit modification, the results of the site investigations, and other information, including comments received during the sixty (60) day public comment period required for Class 3 permit modifications, the Administrative Authority determines that releases or suspected releases which were investigated either are non-existent or do not pose a threat to human health and/or the environment, the Administrative Authority may grant the requested modification.

VIII.K.2. If necessary to protect human health and/or the environment, a determination of no further action shall not preclude the Administrative Authority from requiring continued monitoring of air, soil, groundwater, or surface water, when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.

VIII.K.3. A determination of no further action shall not preclude the Administrative Authority from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU at the facility that is likely to pose a threat to human health and/or the environment. In such a case, the Administrative Authority shall initiate a modification to the Permit according to LAC 33:V.321.

VIII.L. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs AND POTENTIAL AOCs

VIII.L.1. The Permittee shall notify the Administrative Authority, in writing, of any newly-identified SWMU(s) and potential AOC(s) (i.e., a unit or area not specifically identified during previous corrective action assessments, RFA, etc.), discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The Permittee shall also notify the Administrative Authority of any newly-constructed land-based SWMUs (including but not limited to, surface impoundments, waste piles, landfills, land treatment units) and newly-constructed SWMUs where any release of hazardous constituents may be difficult to identify (e.g., underground storage tanks) no later than thirty (30) days after construction. The notification shall include the following items, to the extent available:

VIII.L.1.a. The location of the newly-identified SWMU or potential AOC on the topographic map required under LAC 33:V.517.B. Indicate all existing units (in relation to other SWMUs);

- VIII.L.1.b. The type and function of the unit;
 - VIII.L.1.c. The general dimensions, capacities, and structural description of the unit (supply any available drawings);
 - VIII.L.1.d. The period during which the unit was operated;
 - VIII.L.1.e. The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU or potential AOC; and
 - VIII.L.1.f. Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the SWMU or whether the AOC should be considered a SWMU.
- VIII.L.2. Based on the results of this Notification the Administrative Authority will designate the newly-identified AOC(s). Further, the Administrative Authority will determine the need for further investigations or corrective measures at any newly identified SWMU(s) or AOC(s). If the Administrative Authority determines that such investigations are needed, the Administrative Authority may require the Permittee to prepare a plan for such investigations. The plan for investigation of SWMU(s) or AOC(s) will be reviewed for approval as part of the current CAS Work-plan or a new CAS Work-plan. Table 2 of this permit will be modified to incorporate the investigation requirements for the newly-identified SWMUs and potential AOC(s) identified pursuant to Section VIII.L.1.

VIII.M. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMU(S) AND AOC(S)

The Permittee shall notify the Administrative Authority in writing, no later than fifteen (15) calendar days after discovery, of any release(s) from a SWMU or AOC of hazardous waste or hazardous constituents discovered during the course of ground water monitoring, field investigation, environmental auditing, or other means. Such newly-discovered releases may be from newly-identified SWMUs or AOCs, newly-constructed SWMUs, or from SWMUs or AOCs for which, based on the findings of the CSM, completed RER, or investigation of an AOC(s), the Administrative Authority had previously determined no further investigation was necessary. The notification shall include information concerning actual and/or potential impacts beyond the facility boundary and on human health and the environment, if available at the time of the notification. The Administrative Authority may require further

investigation and/or interim measures for the newly-identified release(s), and may require the Permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of the CAS Work Plan or a new CAS Work Plan. The Permit will be modified according to LAC 33:V.321 to incorporate the investigation.

APPENDIX 1

SUMMARY OF CORRECTIVE ACTION ACTIVITIES

Five (5) SWMUs were identified by an EPA contractor during a RCRA Facility Assessment (RFA). The status of the SWMUs are provided below.

EXISTING SWMUs
UOP LLC
Blanchard Facility

<i>Status</i>	<i>Unit</i>	<i>Description</i>
A	No. 1 Holding Pond, No. 1 and 2 Settling Basins (SWMU No.2)	Identified in the June 7, 1990 EPA RFA. The unit is now a permitted solid waste unit (GD-017-0873).
A	The Miscellaneous Chemical Storage Area	A SWMU identified after the June 7, 1990 EPA RFA. It was formerly used as a chemical storage area. The unit is currently in the in Phase III of the RFI Workplan. Due to the fact that a RFI will not be completed under the old HSWA language, UOP will submit a RECAP Report in lieu of a RFI Report.
A	The Aluminum Chloride Area	A SWMU identified after the June 7, 1990 EPA RFA. SWMU is a result of releases from former process units. The unit is currently in Phase III of the RFI Workplan. Due to the fact that a RFI will not be completed under the old HSWA language, UOP will submit a RECAP Report in lieu of a RFI Report.
A	The West Fence Area	A SWMU that is currently under investigation. It was used for the placement of soil excavated from a drum storage area. The Release Assessment I Workplan was approved January 11, 2005. Data is being evaluated to determine whether an assessment is needed for this SWMU.
A	The Pipeline Excavation Area	A SWMU identified after the June 7, 1990 EPA RFA. SWMU is an area consisting of buried construction debris, catalyst spheres, and empty glass jars. Data is being evaluated to determine whether an assessment is needed for this SWMU.

Notes:

Status Codes:

A = Active or currently in use.

Table 1: Corrective Action Strategy Notification and Reporting Requirements

Below is a summary of the major notification and reports that must be submitted by the Permittee to the Administrative Authority under the Corrective Action Strategy of this Permit in the event of releases requiring RCRA corrective action.

<u>Actions</u>	<u>Due Date</u>
Submit Notification of Intent to request use of the CAS to the Administrative Authority for review and comment (Section VIII.B.1)	Within the timeframe specified by the Administrative Authority
CAS Scoping Meeting held between facility and Administrative Authority (Section VIII.B.2)	Within the timeframe specified by the Administrative Authority
Submit Progress Reports on all activities to the Administrative Authority (Section VIII.C.1)	Schedule to be determined by the Administrative Authority on a case by case basis
Make available other reports relating to corrective action to the Administrative Authority (Section VIII.C.2)	Upon request of the Administrative Authority
Provide briefings to the Administrative Authority (Section VIII.C.3)	As necessary
Submit preliminary Conceptual Site Model (CSM) to the Administrative Authority (Section VIII.D)	Within the timeframe specified by the Administrative Authority
Perform Interim Measures (Section VIII.E)	As determined by the Administrative Authority
Submit Corrective Action Strategy (CAS) Work-plan to the Administrative Authority (Section VIII.F)	Within 180 calendar days after the CAS Scoping Meeting
Implement site investigation activities under CAS Work-plan according to approved schedule (Section VIII.G)	Within fourteen (14) days of receipt of approval by the Administrative Authority
Submit Risk Evaluation Report (RER) and Summary to the Administrative Authority (Section VIII.H)	Within ninety (90) days of completion of the site investigation implementation
Submit Risk Management Plan and Summary to the Administrative Authority (Section VIII.J)	Within sixty (60) days of approval of the Risk Evaluation Report
Submit NFA (and Permit Modification) request to the Administrative Authority (Section VIII.K)	As necessary
Notification of newly-identified SWMUs and potential AOCs (Section VIII.L)	Thirty (30) calendar days after discovery
Notification of newly-discovered releases (Section VIII.M)	Fifteen (15) calendar days after discovery

Table 1: CAS IMPLEMENTATION SUMMARY

Below is a summary of the planned reporting requirements pursuant to this Permit:

<u>Actions</u>	<u>Due Date</u>
Submit Conceptual Site Model (CSM) to the Administrative Authority.	Within the timeframe specified by the Administrative Authority in the written notification requesting the preliminary Conceptual Site Model (CSM)
Notification of newly-identified SWMUs; Permit J	thirty (30) calendar days after discovery
Notification of newly-discovered releases; Permit section VII.K.	fifteen (15) calendar days after discovery
Submit Notice of Intent to the Administrative Authority	Submitted no later than thirty (30) calendar days after the effective date of the permit
EPA/LDEQ review and respond to Notice of Intent	Within sixty (60) calendar days after receipt of Notice of Intent from facility.
Scoping Meeting to be held between facility and EPA/LDEQ.	As determined by the Administrative Authority
Facility initiates compilation of a CAS Work Plan; Permit section VII.M	Within sixty (60) calendar days after receiving written notification from the Administrative Authority to submit a CAS Work Plan.
Submit CAS Work Plan to the Administrative Authority.	Within the timeframe specified by the Administrative Authority in the written notification requesting the CAS Work Plan
Evaluate and prioritize impacts from releases utilizing RECAP	As determined and approved by the Administrative Authority
Submit the Risk Evaluation Report (RER) to the Administrative Authority	Within the timeframe specified by the Administrative Authority in the written notification requesting the RER

Table 2: SWMUs/AOC's REQUIRING AN RFI OR SIMILAR FACILITY INVESTIGATION UNDER A CURRENT CORRECTIVE ACTION PROGRAM

Below is a list of units requiring an RFI or are being addressed under a current RFI program.

AOC/SWMU NUMBER	NAME/DESCRIPTION
Miscellaneous Chemical Storage Area	A SWMU identified after the June 7, 1990 EPA RFA. It was formerly used as a chemical storage area. The unit is currently in the in Phase III of the RFI Workplan. Due to the fact that a RFI will not be completed under the old HSWA language, UOP will submit a RECAP Report in lieu of a RFI Report.
Aluminum Chloride Area	A SWMU identified after the June 7, 1990 EPA RFA. It was formerly used as a chemical storage area. The unit is currently in the in Phase III of the RFI Workplan. Due to the fact that a RFI will not be completed under the old HSWA language, UOP will submit a RECAP Report in lieu of a RFI Report.
West Fence Area	A SWMU that is currently under investigation. It was used for the placement of soil excavated from a drum storage area. The Release Assessment I Workplan was approved January 11, 2005. Data is being evaluated to determine whether an assessment is needed for this SWMU.
Pipeline Excavation Area	A SWMU identified after the June 7, 1990 EPA RFA. SWMU is an area consisting of buried construction debris, catalyst spheres, and empty glass jars. Data is being evaluated to determine whether an assessment is needed for this SWMU.

Table 3: SUMMARY OF ONGOING/PROPOSED CORRECTIVE ACTION ACTIVITIES

Corrective Action Vehicle	Unit(s) Affected	Stage of Corrective Action Activity	Document Dates	EDMS ID#
Louisiana Solid Waste Permit (P-0182) GD-017-0813	No. 1 Holding Pond, No. 1 and 2 Settling Basins (SWMU No.2)	Operating four (4) recovery wells to reduce chloride contamination levels in the 40-Foot Zone groundwater	10/03/1998	1719760

Table 4: AOC/SWMUs THAT RECEIVED NO FURTHER ACTION REQUIRED AT THIS TIME (NFARAT) APPROVALS

SWMU/AOC Number	SWMU Names	Approval Date	EDMS Document Number
*			

Note: The name, number, approval date and EDMS document number pertaining to the SWMUs and AOCs receiving no further action approvals shall be included in this table contingent upon approval by LDEQ.

* Currently, no AOC/SWMUs have received a NFARAT.

- VIII.C.1.a. A description of the work completed and an estimate of the percentage of work completed;
 - VIII.C.1.b. Summaries of all findings, including summaries of laboratory data;
 - VIII.C.1.c. Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;
 - VIII.C.1.d. Projected work for the next reporting period;
 - VIII.C.1.e. Summaries of contacts pertaining to corrective action or environmental matters with representatives of the local community, public interest groups or State government during the reporting period;
 - VIII.C.1.f. Changes in key project personnel during the reporting period; and
 - VIII.C.1.g. Summaries of all changes made in implementation during the reporting period.
- VIII.C.2. Copies of other reports relating to or having bearing upon the corrective action work (e.g., inspection reports), drilling logs and laboratory data shall be made available to the Administrative Authority upon request.
- VIII.C.3. In addition to the written reports as required in Section VIII.C.1 and VIII.C.2. above, at the request of the Administrative Authority, the Permittee shall provide status review through briefings with the Administrative Authority.
- VIII.C.4. The determination and approval of remedy selections, schedules of submittals and minor changes to any corrective action work-plans may be made by the Administrative Authority during scoping or status review briefings as described in Section VIII.C.3.

VIII.D. SPECIFIC CONDITION – CONCEPTUAL SITE MODEL

At the discretion and within the time frame specified by the Administrative Authority, the Permittee shall submit to the Administrative Authority a preliminary Conceptual Site Model (CSM) which will cover background information and current conditions at the facility. At the discretion of the Administrative Authority, the CSM may be required for on-going corrective action or for newly identified SWMU(s) or AOC(s) according to Section VIII.L of this permit (See Appendix 1, Ongoing Corrective Action). **Any requirements for a CSM would be specified in Appendix 1 and Table 1 of the HSWA Section by the Administrative Authority.**

The CSM shall consider and identify all data gaps. The CSM shall identify the known or potential constituent source(s) (primary as well as secondary and tertiary sources if applicable), routes of constituent migration, exposure media, exposure points and pathways, receptors and source media to be evaluated under the RECAP. The CSM shall be considered as the “base document” to be prepared and updated by the facility as new information is gathered during investigations. The CSM shall be used by the facility to make decisions regarding risk management options, ecological risk, and monitored natural attenuation determinations (RECAP Section 2.12), or technical impracticability (TI) waiver determinations, when appropriate. The CSM shall be divided into Profiles as listed below.

VIII.D.1. Facility Profile

The Permittee shall include in the CSM a Facility Profile which shall summarize the regional location, pertinent boundary features, general facility structures, process areas, and locations of solid waste management units or other potential sources of contaminant migration from the routine and systematic releases of hazardous constituents to the environment (e.g., truck or railcar loading/unloading areas). The Permittee shall also include historical features that may be potential release areas because of past waste management practices. The Facility Profile shall include:

- VIII.D.1.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

- VIII.D.1.a.(1)** General geographic location;

VIII.D.1.a.(2) Property lines with the owners of all adjacent property clearly indicated;

VIII.D.1.a.(3) Facility structures, process areas and maintenance areas;

VIII.D.1.a.(4) Any other potential release areas shall be delineated, such as railcar loading/unloading areas or any other AOI as described in RECAP Section 2.6; and

VIII.D.1.a.(5) Locations of historical features that may be potential release areas or any areas of past solid and hazardous waste generation, treatment, storage or disposal activities.

VIII.D.1.b. The Facility Profile shall also include a description of ownership and operation of the facility.

VIII.D.1.c. Approximate dates or periods of past waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, federal, or private party response units), including any inspection reports or technical reports generated as a result of the response.

VIII.D.2. Land Use and Exposure Profile

The Permittee shall include in the CSM a Land Use and Exposure Profile which includes surrounding land uses (industrial and non-industrial, as described in RECAP Sections 2.9.1 and 2.9.2), resource use locations (water supply wells, surface water intakes, etc.), beneficial resource determinations (groundwater classifications as described in RECAP Section 2.10), natural resources (wetlands, etc.), sensitive subpopulation types and locations (schools, hospitals, nursing homes, day care centers, etc.), applicable exposure scenarios,

and applicable exposure pathways identifying the specific sources, releases, migration mechanisms, exposure media, exposure routes and receptors. The Land Use and Exposure Profile shall include:

VIII.D.2.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.2.a.(1) Surrounding land uses, resource use locations, and natural resources/wetlands;

VIII.D.2.a.(2) Locations of sensitive subpopulations; and

VIII.D.2.a.(3) An exposure pathway flowchart which outlines sources, migration pathways, exposure media and potential receptors as depicted in Figure 8 (Conceptual Model Example) of RECAP.

VIII.D.3. Physical Profile

The Permittee shall include in the CSM a Physical Profile which shall describe the factors that may affect releases, fate and transport, and receptors, including; topography, surface water features, geology, and hydrogeology. The Physical Profile shall include:

VIII.D.3.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V.Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.3.a.(1) Topographic maps with a contour interval of five (5) or ten (10) feet, a scale of one inch to 100 feet (1:100), including hills, gradients, and surface vegetation or pavement;

VIII.D.3.a.(2) Surface water features including routes of all drainage ditches, waterways, direction of flow, and how they migrate to other surface water bodies such as canals and lakes;

VIII.D.3.a.(3) Regional geology including faulting and recharge areas, as well as local geology depicting surface features such as soil types, outcrops, faulting, and other surface features;

VIII.D.3.a.(4) Subsurface geology including stratigraphy, continuity (locations of facies changes, if known), faulting and other characteristics;

VIII.D.3.a.(5) Maps with hydrogeologic information identifying water-bearing zones, hydrologic parameters such as transmissivity, and conductivity. Also locations and thicknesses of aquitards or impermeable strata; and

VIII.D.3.a.(6) Locations of soil borings and production and groundwater monitoring wells, including well log information, and construction of cross-sections which correlate substrata. Wells shall be clearly labeled with ground and top of casing elevations (can be applied as an attachment).

VIII.D.4. Release Profile

The Permittee shall include in the CSM a Release Profile which shall describe the known extent of contaminants in the environment, including sources, contaminants of concern (COC), areas of investigations, distribution and magnitude of known COCs with corresponding sampling locations, and results of fate and transport modeling depicting potential future extent/magnitude of COCs. The Release Profile shall include:

VIII.D.4.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V. Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.4.a.(1) Estimations of source concentrations, exposure concentrations and compliance concentrations for each affected media as defined in Section 2.8 of RECAP;

VIII.D.4.a.(2) Isopleth maps depicting lateral extent and concentrations of COCs;

VIII.D.4.a.(3) Results of fate and transport modeling showing potential exposure concentrations and locations; and

VIII.D.4.a.(4) Locations of potential sources including past or present waste units or disposal areas and all SWMUs.

VIII.D.4.b. Table(s) depicting the following information. Unit/disposal area characteristics, including but not limited to: location of unit/disposal area; type of unit/disposal area; design features; operating practices (past and present); period of operation; age of unit/disposal area; general physical condition; and method used to close the unit/disposal area.

VIII.D.4.c. Table(s) depicting waste characteristics, including but not limited to: type of waste placed in the unit (hazardous classification, quantity, chemical composition), physical and chemical characteristics (physical form, description, temperature, pH, general chemical class, molecular weight, density, boiling point, viscosity, solubility in water, solubility in solvents, cohesiveness, vapor pressure); and migration and dispersal characteristics of the waste (sorption coefficients, biodegradability, photodegradation rates, hydrolysis rates, chemical transformations).

VIII.D.5. Ecological Profile

The Permittee shall include in the CSM an Ecological Profile that shall describe the physical relationship between the developed and undeveloped portions of the facility, the use and level of disturbance of the undeveloped property, and the type of ecological receptors present in relation to completed exposure pathways. When compiling data for the Ecological Profile, current as well as future impacts to receptors and/or their habitats shall be considered. The Ecological Profile shall include:

- VIII.D.5.a. A history and description of the developed property on the facility, including structures, process areas, waste management units, and property boundaries.
- VIII.D.5.b. A history and description of the undeveloped property, including habitat type (wetland, grassy area, forest, ponds, etc.). Include a description of the primary use, degree and nature of any disturbance, along with proximity to drainage ditches, waterways and landfill areas.
- VIII.D.5.c. A description of the site receptors in relation to habitat type, including endangered or protected species, mammals, birds, fish, etc.
- VIII.D.5.d. A description of the relationship between release areas and habitat areas, specifically relating chemicals of potential ecological concern (COEC) to ecological receptors.
- VIII.D.5.e. An ecological checklist as described in Section 7.0 of RECAP. An ecological checklist (presented in Appendix C, Form 18 of the RECAP) shall be used to determine if a tier 1 (screening level) Ecological Risk Assessment (ERA) is warranted.

VIII.D.6. Risk Management Profile

The Permittee shall include in the CSM a Risk Management Profile that shall describe how each AOI at the facility will be managed for the protection of human health and the environment. The Risk Management Profile will serve as documentation of the results of the site ranking system (described in Section 2.2 of RECAP). The Risk Management Profile will also document the criteria and verify that the SO, MO-1, MO-2 or MO-3 is appropriate for application at each AOI. The Risk Management Profile shall include:

- VIII.D.6.a. A table for tracking the management options for each AOI, and the determination made, whether an AOI is deemed for no further action (NFA) or is going to use either the SO, MO-1, MO-2 or MO-3 management option.
- VIII.D.6.b. A list of identified site-wide data gaps for further investigation.

- VIII.D.6.c.** Documentation of all interim measures which have been or are being undertaken at the facility, including under State or Federal compliance orders, other than those specified in the Permit. This documentation shall include the objectives of the interim measures and how the measure is mitigating a potential threat to human health or the environment and/or is consistent with and integrated into requirements for a long term remedial solution.

VIII.E. INTERIM MEASURES

- VIII.E.1.** If during the course of any activity initiated under this Permit, the Administrative Authority determines that a release or potential release of hazardous constituents from a SWMU poses a threat to human health and the environment, the Administrative Authority may require interim measures. The Administrative Authority shall determine the specific measure(s) or require the Permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and a written plan. The Administrative Authority may modify this Permit according to LAC 33:V.321 to incorporate interim measures into the Permit. However, depending upon the nature of the interim measure, a permit modification may not be required.
- VIII.E.2.** The Permittee may propose interim measures at any time. The proposal shall include a written plan and a schedule for implementation.
- VIII.E.3.** The Administrative Authority may determine the need for an interim measure at any time during the corrective action process. The Administrative Authority shall notify the Permittee in writing of the requirement to perform an interim measure. The following factors will be considered by the Administrative Authority in determining the need for interim measures and the need for permit modification:
- VIII.E.3.a.** Time required to develop and implement a final remedy;
 - VIII.E.3.b.** Actual and potential exposure to human and environmental receptors;
 - VIII.E.3.c.** Actual and potential contamination of drinking water supplies and sensitive ecosystems;
 - VIII.E.3.d.** The potential for further degradation of the medium in the absence of interim measures;

- VIII.E.3.e. Presence of hazardous wastes in containers that may pose a threat of release;
- VIII.E.3.f. Presence and concentration of hazardous waste including hazardous constituents in soil that have the potential to migrate to ground water or surface water;
- VIII.E.3.g. Weather conditions that may affect the current levels of contamination;
- VIII.E.3.h. Risks of fire, explosion, or accident; and
- VIII.E.3.i. Other situations that may pose threats to human health and the environment.

VIII.E.4. Upon approval of the Interim Measure(s) work-plan and completion of the Interim Measure implementation, the Permittee will submit a report to the Administrative Authority describing the completed work..

VIII.E.5. At anytime during or after the Interim Measures, including the issuance of an NFA-ATT, the Administrative Authority may require the Permittee to submit the SWMU(s) for further corrective action.

VIII.F. CAS (CORRECTIVE ACTION STRATEGY) WORK-PLAN

VIII.F.1. The CAS work-plan that describes site investigation activities for corrective action shall be submitted to the Administrative Authority within 180 calendar days after the scoping meeting between the Permittee and the Administrative Authority. The CAS work-plan must address releases of hazardous waste or hazardous constituents to all media, unless otherwise indicated in Table 2, for those SWMUs listed in Table 2. The focus of the site investigation phase for corrective action is to collect data to fill in data gaps identified in the CSM. The corrective action investigations may be conducted in phases if warranted by site conditions, contingent upon approval by the Administrative Authority.

VIII.F.1.a. The CAS work-plan shall describe the management options (MO) for each AOI/release area, data quality objectives for achieving each management option, and proposals for release characterizations (sampling and analysis/quality assurance plans) to support the data quality objectives (DQO's). (DQOs are determined based on the end use of the data to be collected, and the DQO development process should be integrated into project planning and refined throughout the CAS implementation. DQOs shall be used to 1) ensure that

environmental data are scientifically valid, defensible, and of an appropriate level of quality given the intended use, and 2) expedite site investigations. The CAS Work Plan is required to have DQOs that are developed to support the performance standard for each release.) The CAS work-plan shall detail all proposed activities and procedures to be conducted at the facility, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the site investigations. The scope of work for the site investigation can be found in RECAP Appendix B.

VIII.F.1.b. The CAS work-plan shall describe sampling, data collection quality assurance, and data management procedures, including formats for documenting and tracking data and other results of investigations, and health and safety procedures.

VIII.F.1.c. Development of the CAS work-plan and reporting of data shall be consistent with the following EPA and State guidance documents or the equivalent thereof:

VIII.F.1.c.(1) Guidance for the Data Quality Assessment, Practical Methods for Data Analysis. QA97 Version EPA QA/G-9. January 1998;

VIII.F.1.c.(2) Guidance for the Data Quality Objectives Process. EPA QA/G-4. September 1994;

VIII.F.1.c.(3) Data Quality Objectives Remedial Response Activities. EPA/540/G87-003. March 1987;

VIII.F.1.c.(4) Guidance on Quality Assurance Project Plans. EPA QA/G-5. February 1998;

VIII.F.1.c.(5) Interim EPA Data Requirements for Quality Assurance Project Plans. EPA Region 6, Office of Quality Assurance. May 1994;

VIII.F.1.c.(6) 29 CFR 1910.120 (b) for the elements to Health and Safety plans;

VIII.F.1.c.(7) RCRA Groundwater Monitoring: Draft Technical Guidance EPA/530-R-93-001 November 1992;

VIII.F.1.c.(8) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods; SW-846, 3rd Edition. November 1992, with revisions;

VIII.F.1.c.(9) LDEQ Handbook - Construction of Geotechnical Boreholes and Groundwater Monitoring Systems," prepared by the LDEQ and the Louisiana Department of Transportation and Development, dated May, 1993. This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245; and

VIII.F.1.c.(10) LAC 33:I. Chapter 13 and Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP), October 20, 2003 with revisions.

VIII.F.2. After the Permittee submits the CAS work-plan, the Administrative Authority will either approve, disapprove, or otherwise modify the CAS work-plan in writing.

If the Administrative Authority approves the work-plan, the Permittee shall begin implementation of the plan within two weeks (14 days) of receipt of approval, and implement it according to the schedule contained in the plan. All approved work-plans become incorporated into this Permit in accordance with Section VII.A.9.

In event of disapproval (in whole or in part) of the work-plan, the Administrative Authority shall specify deficiencies in writing. The Permittee shall modify the CAS work-plan to correct these within the time frame specified in the notification of disapproval by the Administrative Authority. The modified work-plan shall be submitted in writing to the Administrative Authority for review. Should the Permittee take exception to all or part of the disapproval, the Permittee shall submit a written statement of the ground for the exception within 10 days of receipt of the disapproval.

- VIII.F.3.** The Administrative Authority shall review for approval as part of the CAS work-plan or as a new work-plan any plans developed pursuant to Section VIII.L. Further investigations of new releases from previously-identified SWMUs or AOs, shall be addressed in accordance with Section VIII.M.

VIII.G. IMPLEMENTATION OF SITE INVESTIGATION ACTIVITIES UNDER CAS

No later than (14) calendar days after the Permittee has received written approval from the Administrative Authority for the CAS work-plan, the Permittee shall implement the site investigation activities according to the schedules and in accordance with the approved CAS work-plan and the following:

- VIII.G.1.** The Permittee shall notify Administrative Authority at least 10 days prior to any field sampling, field-testing, or field monitoring activity required by this Permit to give LDEQ personnel the opportunity to observe investigation procedures and/or split samples.
- VIII.G.2.** Deviations from the approved CAS work-plan, which are necessary during implementation, must be approved by the Administrative Authority and fully documented and described in the progress reports (Section VIII.C.) and the final Risk Management Plan, Section VIII.J.

VIII.H. RISK EVALUATION REPORT

Within ninety (90) days after completion of the site investigation, the Permittee shall submit a Risk Evaluation Report (RER) to the Administrative Authority for approval. The Risk Evaluation Report shall document the results of the site investigation activities, and the evaluation of the impacts from releases. If the Administrative Authority determines the Risk Evaluation Report does not fully meet the objectives stated in the CAS work-plan (Section VIII.F.), the Administrative Authority shall notify the Permittee in writing of the report's deficiencies, and specify a due date for submittal of a revised Final Report to the Administrative Authority.

- VIII.H.1.** The Permittee shall screen site-specific data using the appropriate RECAP standard (RS) for each AOI (depending on the MO), evaluate impacts from releases with exposure scenario evaluations, and update the Risk Management Profile of the CSM.
- VIII.H.2.** The report shall include, but not be limited to, the following:
- VIII.H.2.a.** Documentation of site investigation activities and results;
 - VIII.H.2.b.** Evaluation of exposure scenarios to document impacts from releases;

- VIII.H.2.c. Results of screening activities using RECAP standards (RS), including SO, MO-1, MO-2, or MO-3 RS for each media;
- VIII.H.2.d. The revised CSM with updated profiles which incorporate investigation and screening results; and
- VIII.H.2.e. Proposed revisions to performance standards based on new information (e.g., change in land use, difference in expected receptors and/or exposure, or other differences in site conditions), if warranted.

VIII.I. REMEDY EVALUATION/SELECTION

Upon completion and approval of the Risk Evaluation Report, the Permittee shall proceed with the evaluation of remedial alternatives to complete corrective action for each AOI. Remediation standards for each AOI are described in Permit sections VIII.A.2.a. - VIII.A.2.c. The remedy selections will be presented to the Administrative Authority in the Risk Management Plan.

- VIII.I.1. The Permittee shall select remedies for each AOI that shall:
 - VIII.I.1.a. attain compliance with corrective action objectives for releases of hazardous waste and/or hazardous constituents, as established in the Conceptual Site Model or in later investigations approved by the Administrative Authority;
 - VIII.I.1.b. control sources of releases;
 - VIII.I.1.c. meet acceptable waste management requirements; and
 - VIII.I.1.d. protect human health and the environment.
- VIII.I.2. The Permittee shall evaluate the use of presumptive remedies and innovative technologies to achieve the appropriate remediation standards for each AOI.
- VIII.I.3. The Permittee shall review the current interim measures/ stabilization activities to evaluate if these measures meet all the criteria for final remedy.
- VIII.I.4. If under certain site-specific conditions, or when it is not technically or economically feasible to attain the corrective action objectives, the Permittee may propose to use institutional controls to supplement treatment or containment-based remedial actions upon approval of the Administrative Authority (Section 2.15 of RECAP).

- VIII.I.5.** The Permittee shall propose corrective action remedies in accordance with Chapter IV of the RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3 -2A.

VIII.J. RISK MANAGEMENT PLAN

After the evaluation of remedial alternatives, the remedy selections shall be documented in the Risk Management Plan and Summary. The plan shall be submitted within sixty (60) days of approval of the Risk Evaluation Report.

- VIII.J.1.** The Risk Management Plan shall at a minimum include:

- VIII.J.1.a.** A summary of the remedial alternatives for each AOI and the rationale used for remedy selection;
- VIII.J.1.b.** The final conceptual site model (CSM) with remedies, including locations of AOIs addressed by a risk management activity, constituent of concern (COC) concentrations that represent the long-term fate and transport of residual COC's and the exposure pathways affected by the risk management activity;
- VIII.J.1.c.** Cost estimates and implementation schedules for final remedies;
- VIII.J.1.d.** Remedy design and implementation precautions, including special technical problems, additional engineering data required, permits and regulatory requirements, property access, easements, and right-of-way, special health and safety requirements, and community relations activities;
- VIII.J.1.e.** Remedy performance criteria and monitoring:

The Permittee shall identify specific criteria (such as land use changes, fate and transport model verification and constructed remedy performance) that will be evaluated to demonstrate that the risk management activity implemented will remain protective. A schedule for periodic performance review (such as monitoring data summaries, possibly including graphical and statistical analyses) shall be established to demonstrate that the implemented activities are consistently achieving and maintaining desired results.

Further, a mechanism shall be established to re-evaluate risk management activities in the event the implemented action does not achieve and maintain the performance standards;

VIII.J.1.f. Contingency plans; and

VIII.J.1.g. Description and schedules for performance reviews.

VIII.J.2. After the Permittee submits the Risk Management Plan and Summary, the Administrative Authority will either approve or disapprove them in writing. Should the Permittee take exception to the disapproval, decision, or directive, the Permittee shall notify the Administrative Authority in writing.

VIII.J.3. If the Administrative Authority determines the Risk Management Plan and Summary do not fully meet the remedial objectives, the Administrative Authority may disapprove the Risk Management Plan and Summary. In addition, the Administrative Authority may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies. If the Administrative Authority disapproves the report, the Administrative Authority shall notify the Permittee in writing of the report's deficiencies and specify a due date for submittal of a revised Final Risk Management Plan and Summary.

VIII.J.4. Within thirty (30) calendar days after approval of the Risk Management Report and Summary, the Administrative Authority shall initiate modification of the Permit according to LAC 33:V.321.C, for remedy selection, based on the approved Risk Management Report. The resultant modified permit will include schedules for remedy implementation.

VIII.K. DETERMINATION OF NO FURTHER ACTION

VIII.K.1. Based on the results of the site investigations, screening, risk evaluations and risk management activities, the Permittee may submit an application to the Administrative Authority for a Class 3 permit modification under LAC 33:V.321.C.3. to terminate further corrective action for a specific unit. This permit modification application must contain information demonstrating that there are no releases of hazardous constituents from a particular SWMU at the facility that pose threats to human health and/or the environment, as well as additional information required in LAC 33:V.321.C.3.

The basis for the determination of no further action shall follow the guidelines as described in the RECAP for each AOI, depending on the MO used.

If, based upon review of the Permittee's request for a permit modification, the results of the site investigations, and other information, including comments received during the sixty (60) day public comment period required for Class 3 permit modifications, the Administrative Authority determines that releases or suspected releases which were investigated either are non-existent or do not pose a threat to human health and/or the environment, the Administrative Authority may grant the requested modification.

VIII.K.2. If necessary to protect human health and/or the environment, a determination of no further action shall not preclude the Administrative Authority from requiring continued monitoring of air, soil, groundwater, or surface water, when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.

VIII.K.3. A determination of no further action shall not preclude the Administrative Authority from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU at the facility that is likely to pose a threat to human health and/or the environment. In such a case, the Administrative Authority shall initiate a modification to the Permit according to LAC 33:V.321.

VIII.L. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs AND POTENTIAL AOCs

VIII.L.1. The Permittee shall notify the Administrative Authority, in writing, of any newly-identified SWMU(s) and potential AOC(s) (i.e., a unit or area not specifically identified during previous corrective action assessments, RFA, etc.), discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The Permittee shall also notify the Administrative Authority of any newly-constructed land-based SWMUs (including but not limited to, surface impoundments, waste piles, landfills, land treatment units) and newly-constructed SWMUs where any release of hazardous constituents may be difficult to identify (e.g., underground storage tanks) no later than thirty (30) days after construction. The notification shall include the following items, to the extent available:

VIII.L.1.a. The location of the newly-identified SWMU or potential AOC on the topographic map required under LAC 33:V.517.B. Indicate all existing units (in relation to other SWMUs);

- VIII.L.1.b. The type and function of the unit;
- VIII.L.1.c. The general dimensions, capacities, and structural description of the unit (supply any available drawings);
- VIII.L.1.d. The period during which the unit was operated;
- VIII.L.1.e. The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU or potential AOC; and
- VIII.L.1.f. Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the SWMU or whether the AOC should be considered a SWMU.

VIII.L.2. Based on the results of this Notification the Administrative Authority will designate the newly-identified AOC(s). Further, the Administrative Authority will determine the need for further investigations or corrective measures at any newly identified SWMU(s) or AOC(s). If the Administrative Authority determines that such investigations are needed, the Administrative Authority may require the Permittee to prepare a plan for such investigations. The plan for investigation of SWMU(s) or AOC(s) will be reviewed for approval as part of the current CAS Work-plan or a new CAS Work-plan. Table 2 of this permit will be modified to incorporate the investigation requirements for the newly-identified SWMUs and potential AOC(s) identified pursuant to Section VIII.L.1.

VIII.M. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMU(S) AND AOC(S)

The Permittee shall notify the Administrative Authority in writing, no later than fifteen (15) calendar days after discovery, of any release(s) from a SWMU or AOC of hazardous waste or hazardous constituents discovered during the course of ground water monitoring, field investigation, environmental auditing, or other means. Such newly-discovered releases may be from newly-identified SWMUs or AOCs, newly-constructed SWMUs, or from SWMUs or AOCs for which, based on the findings of the CSM, completed RER, or investigation of an AOC(s), the Administrative Authority had previously determined no further investigation was necessary. The notification shall include information concerning actual and/or potential impacts beyond the facility boundary and on human health and the environment, if available at the time of the notification. The Administrative Authority may require further

investigation and/or interim measures for the newly-identified release(s), and may require the Permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of the CAS Work Plan or a new CAS Work Plan. The Permit will be modified according to LAC 33:V.321 to incorporate the investigation.

APPENDIX 1

SUMMARY OF CORRECTIVE ACTION ACTIVITIES

Five (5) SWMUs were identified by an EPA contractor during a RCRA Facility Assessment (RFA). The status of the SWMUs are provided below.

EXISTING SWMUs
UOP LLC
Blanchard Facility

<i>Status</i>	<i>Unit</i>	<i>Description</i>
A	No. 1 Holding Pond, No. 1 and 2 Settling Basins (SWMU No.2)	Identified in the June 7, 1990 EPA RFA. The unit is now a permitted solid waste unit (GD-017-0873).
A	The Miscellaneous Chemical Storage Area	A SWMU identified after the June 7, 1990 EPA RFA. It was formerly used as a chemical storage area. The unit is currently in the in Phase III of the RFI Workplan. Due to the fact that a RFI will not be completed under the old HSWA language, UOP will submit a RECAP Report in lieu of a RFI Report.
A	The Aluminum Chloride Area	A SWMU identified after the June 7, 1990 EPA RFA. SWMU is a result of releases from former process units. The unit is currently in Phase III of the RFI Workplan. Due to the fact that a RFI will not be completed under the old HSWA language, UOP will submit a RECAP Report in lieu of a RFI Report.
A	The West Fence Area	A SWMU that is currently under investigation. It was used for the placement of soil excavated from a drum storage area. The Release Assessment I Workplan was approved January 11, 2005. Data is being evaluated to determine whether an assessment is needed for this SWMU.
A	The Pipeline Excavation Area	A SWMU identified after the June 7, 1990 EPA RFA. SWMU is an area consisting of buried construction debris, catalyst spheres, and empty glass jars. Data is being evaluated to determine whether an assessment is needed for this SWMU.

Notes:

Status Codes:

A = Active or currently in use.

Table 1: Corrective Action Strategy Notification and Reporting Requirements

Below is a summary of the major notification and reports that must be submitted by the Permittee to the Administrative Authority under the Corrective Action Strategy of this Permit in the event of releases requiring RCRA corrective action.

<u>Actions</u>	<u>Due Date</u>
Submit Notification of Intent to request use of the CAS to the Administrative Authority for review and comment (Section VIII.B.1)	Within the timeframe specified by the Administrative Authority
CAS Scoping Meeting held between facility and Administrative Authority (Section VIII.B.2)	Within the timeframe specified by the Administrative Authority
Submit Progress Reports on all activities to the Administrative Authority (Section VIII.C.1)	Schedule to be determined by the Administrative Authority on a case by case basis
Make available other reports relating to corrective action to the Administrative Authority (Section VIII.C.2)	Upon request of the Administrative Authority
Provide briefings to the Administrative Authority (Section VIII.C.3)	As necessary
Submit preliminary Conceptual Site Model (CSM) to the Administrative Authority (Section VIII.D)	Within the timeframe specified by the Administrative Authority
Perform Interim Measures (Section VIII.E)	As determined by the Administrative Authority
Submit Corrective Action Strategy (CAS) Work-plan to the Administrative Authority (Section VIII.F)	Within 180 calendar days after the CAS Scoping Meeting
Implement site investigation activities under CAS Work-plan according to approved schedule (Section VIII.G)	Within fourteen (14) days of receipt of approval by the Administrative Authority
Submit Risk Evaluation Report (RER) and Summary to the Administrative Authority (Section VIII.H)	Within ninety (90) days of completion of the site investigation implementation
Submit Risk Management Plan and Summary to the Administrative Authority (Section VIII.J)	Within sixty (60) days of approval of the Risk Evaluation Report
Submit NFA (and Permit Modification) request to the Administrative Authority (Section VIII.K)	As necessary
Notification of newly-identified SWMUs and potential AOCs (Section VIII.L)	Thirty (30) calendar days after discovery
Notification of newly-discovered releases (Section VIII.M)	Fifteen (15) calendar days after discovery

Table 1: CAS IMPLEMENTATION SUMMARY

Below is a summary of the planned reporting requirements pursuant to this Permit:

<u>Actions</u>	<u>Due Date</u>
Submit Conceptual Site Model (CSM) to the Administrative Authority.	Within the timeframe specified by the Administrative Authority in the written notification requesting the preliminary Conceptual Site Model (CSM)
Notification of newly-identified SWMUs; Permit J	thirty (30) calendar days after discovery
Notification of newly-discovered releases; Permit section VII.K.	fifteen (15) calendar days after discovery
Submit Notice of Intent to the Administrative Authority	Submitted no later than thirty (30) calendar days after the effective date of the permit
EPA/LDEQ review and respond to Notice of Intent	Within sixty (60) calendar days after receipt of Notice of Intent from facility.
Scoping Meeting to be held between facility and EPA/LDEQ.	As determined by the Administrative Authority
Facility initiates compilation of a CAS Work Plan; Permit section VII.M	Within sixty (60) calendar days after receiving written notification from the Administrative Authority to submit a CAS Work Plan.
Submit CAS Work Plan to the Administrative Authority.	Within the timeframe specified by the Administrative Authority in the written notification requesting the CAS Work Plan
Evaluate and prioritize impacts from releases utilizing RECAP	As determined and approved by the Administrative Authority
Submit the Risk Evaluation Report (RER) to the Administrative Authority	Within the timeframe specified by the Administrative Authority in the written notification requesting the RER

Table 2: SWMUs/AOC's REQUIRING AN RFI OR SIMILAR FACILITY INVESTIGATION UNDER A CURRENT CORRECTIVE ACTION PROGRAM

Below is a list of units requiring an RFI or are being addressed under a current RFI program.

AOC/SWMU NUMBER	NAME/DESCRIPTION
Miscellaneous Chemical Storage Area	A SWMU identified after the June 7, 1990 EPA RFA. It was formerly used as a chemical storage area. The unit is currently in the in Phase III of the RFI Workplan. Due to the fact that a RFI will not be completed under the old HSWA language, UOP will submit a RECAP Report in lieu of a RFI Report.
Aluminum Chloride Area	A SWMU identified after the June 7, 1990 EPA RFA. It was formerly used as a chemical storage area. The unit is currently in the in Phase III of the RFI Workplan. Due to the fact that a RFI will not be completed under the old HSWA language, UOP will submit a RECAP Report in lieu of a RFI Report.
West Fence Area	A SWMU that is currently under investigation. It was used for the placement of soil excavated from a drum storage area. The Release Assessment I Workplan was approved January 11, 2005. Data is being evaluated to determine whether an assessment is needed for this SWMU.
Pipeline Excavation Area	A SWMU identified after the June 7, 1990 EPA RFA. SWMU is an area consisting of buried construction debris, catalyst spheres, and empty glass jars. Data is being evaluated to determine whether an assessment is needed for this SWMU.

Table 3: SUMMARY OF ONGOING/PROPOSED CORRECTIVE ACTION ACTIVITIES

Corrective Action Vehicle	Unit(s) Affected	Stage of Corrective Action Activity	Document Dates	EDMS ID#
Louisiana Solid Waste Permit (P-0182) GD-017-0813	No. 1 Holding Pond, No. 1 and 2 Settling Basins (SWMU No.2)	Operating four (4) recovery wells to reduce chloride contamination levels in the 40-Foot Zone groundwater	10/03/1998	1719760

Table 4: AOC/SWMUs THAT RECEIVED NO FURTHER ACTION REQUIRED AT THIS TIME (NFARAT) APPROVALS

SWMU/AOC Number	SWMU Names	Approval Date	EDMS Document Number
*			

Note: The name, number, approval date and EDMS document number pertaining to the SWMUs and AOCs receiving no further action approvals shall be included in this table contingent upon approval by LDEQ.

* Currently, no AOC/SWMUs have received a NFARAT.

ATTACHMENT 1

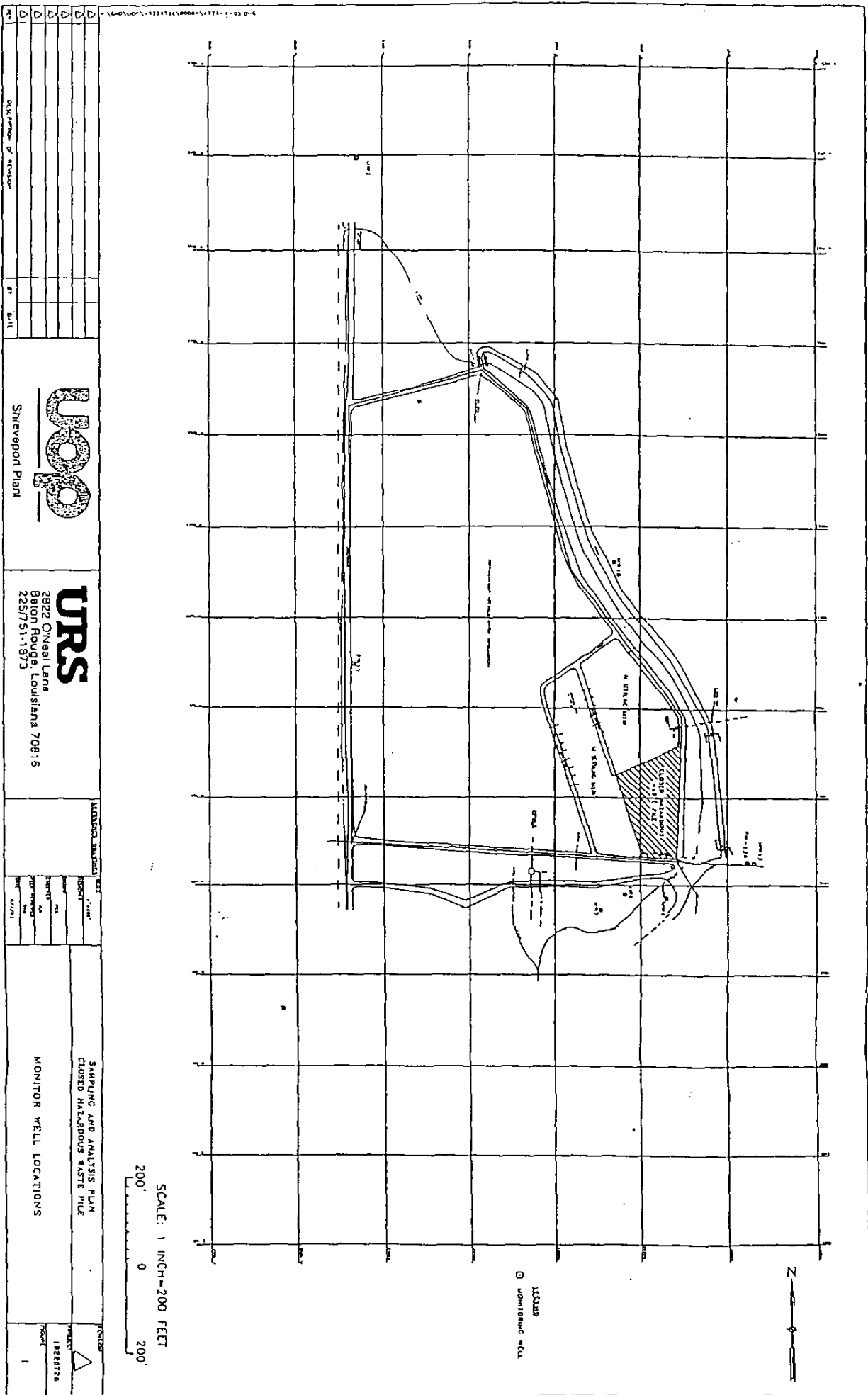
ATTACHMENT 1
LIST OF FACILITY DOCUMENTS INCORPORATED
IN THE PERMIT BY REFERENCE

LAD057109449

AI#17846

DOCUMENT TYPE	APPLICATION /DOCUMENT DATE	ELECTRONIC DATABASE MANAGEMENT SYSTEM (EDMS) DOCUMENT ID	COMMENTS
Arrangement with local authorities	9/3/2003	29137474	Post-Closure Permit Renewal Application, 517.H, Page 65 of the EDMS document
Post-Closure cost estimates	9/3/2003	29137474	Post-Closure Permit Renewal Application, Appendix I, Page 383 of the EDMS document
Post-Closure Plan	9/16/2004	32407315	NOD Responses, Attachment 3, Page 161 of EDMS Document
Sampling and Analysis Plan (Soil and Groundwater)	9/16/2004	32407315	NOD Responses, Attachment 4, Page 172 of EDMS Document
Inspection Plan	9/16/2004	32407315	NOD Responses, Attachment 3, Page 167 of EDMS Document
Security Plan	9/3/2003	29137474	Post-Closure Permit Renewal Application, 517.F, Page 65 of the EDMS document
Groundwater Statistical Evaluation Plan	9/16/2004	32407315	NOD Responses, Attachment 5, Page 161 of EDMS Document

ATTACHMENT 2



		URS 2822 Oneal Lane Baton Rouge, Louisiana 70816 225/751-1873		PROJECT NO. 1828726 DATE 1/18/01		SAMPLING AND ANALYSIS PLAN CLOSED HAZARDOUS WASTE PILE MONITOR WELL LOCATIONS		PROJECT NO. 1828726 DATE 1/18/01	
DEPARTMENT OF ARMY BR Ball									

RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY
UOP, LLC
BLANCHARD FACILITY
HAZARDOUS WASTE POST-CLOSURE PERMIT
PERMIT NUMBER LAD 057109449-PC-1
AGENCY INTEREST #17846

ITEM	1
REFERENCE	UOP, LLC, Blanchard Facility. Comments on the Draft Hazardous Waste Post-Closure Permit, December 13, 2005.
ISSUE	Table 2, Page 28
COMMENT	Page 1, Comment 1 UOP recommends changing the term "Reporting Limit" in Table 2 to either "RECAP Groundwater Screening Standard" or "Trigger Level". Reporting limit is confusing because it is commonly considered an analytical term indicating the lowest concentration at which an analyte can be detected in a sample and its concentration reported with a reasonable degree of accuracy and precision. The values in this column are not related to analytical accuracy or precision.
RESPONSE	The Department concurs with the comment and will make the appropriate changes in the final permit. As noted in the footnote, the concentrations in this column correspond to the maximum concentration limits that apply to the groundwater protection standard for the post-closure unit and were based upon the groundwater screening standards developed by the LDEQ Risk Evaluation Corrective Action Program (RECAP).
ACTION	The term "Reporting Limit" in Section VI.D. Table 2 was changed to "Trigger Level" in the final permit.

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UOP, LLC
BLANCHARD FACILITY
HAZARDOUS WASTE POST-CLOSURE PERMIT
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ITEM	2
REFERENCE	UOP, LLC, Blanchard Facility. Comments on the Draft Hazardous Waste Post-Closure Permit, December 13, 2005.
ISSUE	Table 2, Page 29
COMMENT	<p>Page 2, Comment 2</p> <p>The screening standards listed for the 1-chloro-2-nitrobenzene, 1-chloro-3-nitrobenzene, and 1-chloro-4-nitrobenzene are from the November 1, 2002 <i>Risk Evaluation Corrective Action Program (RECAP) and MO-3 Work Plan for the Miscellaneous Chemical Storage Area and the Aluminum Chloride Area</i> prepared by URS. The modified screening standards were presented in the April 19, 2005 <i>Technical Memorandum, Supplemental Characterization Results and RECAP Approach</i> and approved by LDEQ in correspondence dated October 6, 2005. The appropriate screening standards to be used are for 1-chloro-2-nitrobenzene 0.0068 mg/l, for 1-chloro-3-nitrobenzene 0.0099 mg/l, and for 1-chloro-4-nitrobenzene 0.0099 mg/l.</p>
RESPONSE	The Department concurs with the comment. The modified screening standards were approved subsequent to preparation of the draft permit and will replace the tentative screening standards for the aforementioned parameters.
ACTION	<p>The screening standards were revised in the final permit as follows:</p> <ul style="list-style-type: none">• 1-chloro-2-nitrobenzene was changed from 0.00044mg/l to 0.0068 mg/l;• 1-chloro-3-nitrobenzene was changed from 0.00061mg/l to 0.0099 mg/l; and• 1-chloro-4-nitrobenzene was changed from 0.00061mg/l to 0.0099 mg/l;

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UOP, LLC
BLANCHARD FACILITY
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ITEM	3
REFERENCE	UOP, LLC, Blanchard Facility. Comments on the Draft Hazardous Waste Post-Closure Permit, December 13, 2005.
ISSUE	Table 3, Page 30
COMMENT	Page 3, Comment 3 The Sampling and Analysis Plan (SAP) referenced in the draft permit states that samples will not be filtered in the field for total metals. However, both total and dissolved (filtered) metals may be analyzed during some sampling events to evaluate the effect that suspended solids have on the results. Table 3 appears to suggest that all of the samples will be analyzed for dissolved metals. UOP recommends adding a footnote to Table 3 indicating that the primary analysis will be total metals and samples may be analyzed for dissolved metals as an option.
RESPONSE	The Department concurs with the comment and will make the appropriate changes in the final permit.
ACTION	The footnote to Table 3 was revised as follows: ¹ <u>For total metals (the primary analysis) acidize, then cool to 4° C but do not filter. For soluble dissolved metals, filter through a 0.45 micron filter and acidize to pH less than two (2) with HNO₃, then cool to 4° C. For total metals, acidize but do not filter.</u> (See "US EPA RCRA Ground Water Monitoring Technical Enforcement Guidance Document, EPA 530/SW-86-005.")

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BLANCHARD FACILITY
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ITEM	4
REFERENCE	UOP, LLC, Blanchard Facility. Comments on the Draft Hazardous Waste Post-Closure Permit, December 13, 2005.
ISSUE	Section VI.G.6.
COMMENT	<p>Page 4, Comment 4</p> <p>It is not reasonable to specify that the Permittee graphically represent the values of the detection monitoring parameters in the Semi-Annual Groundwater Monitoring Report due to the fact that volatile and semi-volatile monitoring parameters are generally not detected in the groundwater samples. This section also states that "statistical evaluations shall be performed for the detection monitoring parameters." Because the detection monitoring parameters are generally not expected to be present, the language should be similar to that found in Table 4. It is suggested the language in Section VI.G.6 be changed to:</p> <p style="padding-left: 40px;">"The Permittee must also tabulate or graphically represent the results of the detection monitoring parameters in the Semi-Annual Groundwater Monitoring Report prepared for each sampling episode. The detection monitoring parameters shall be subject to demonstrations or evaluations regarding the statistical significance of any parameter detection as described in the Groundwater Statistical Evaluation Plan."</p>
RESPONSE	The Department concurs with the comment and will make the appropriate changes in the final permit.
ACTION	<p>The language in Section VI.G.6 was revised as follows in the final permit:</p> <p>The Permittee must also tabulate or graphically represent the results of the detection monitoring parameters in the Semi-Annual Groundwater Monitoring Report prepared for each sampling episode. The concentration versus time graphs, must be submitted with the analytical results to the Administrative Authority in the Semi-Annual Groundwater Monitoring Report. Statistical evaluations shall be performed for the detection monitoring parameters in order to determine the facility's</p>

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impact on groundwater. The detection monitoring parameters shall be subject to demonstrations or evaluations regarding the statistical significance of any parameter detection as described in the Groundwater Statistical Evaluation Plan (Attachment 1).

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UOP, LLC
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ITEM	5
REFERENCE	UOP, LLC, Blanchard Facility. Comments on the Draft Hazardous Waste Post-Closure Permit, December 13, 2005.
ISSUE	Section VI.G.8.
COMMENT	Page 6, Comment 5 UOP suggests the phrase "(as applicable)" after "statistical comparisons" in the last sentence of this section, due to the fact that statistical comparison cannot be made if no detection monitoring parameters are detected.
RESPONSE	The Department concurs with the comment and will make the appropriate changes in the final permit.
ACTION	The phrase "(as applicable)" was added after "statistical comparisons" in the last sentence of this section in the final permit.

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UOP, LLC
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ITEM	6
REFERENCE	UOP, LLC, Blanchard Facility. Comments on the Draft Hazardous Waste Post-Closure Permit, December 13, 2005.
ISSUE	Section VI.H.3.
COMMENT	Page 7, Comment 6 UOP suggests the phrase "(as applicable)" after "statistical comparative data" in the third sentence of this section, due to the fact that statistical comparison cannot be made if no detection monitoring parameters are detected.
RESPONSE	The Department concurs with the comment and will make the appropriate changes in the final permit.
ACTION	The phrase "(as applicable)" was added after "statistical comparative data" in the third sentence of this section in the final permit.

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UOP, LLC
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ITEM 7

REFERENCE UOP, LLC, Blanchard Facility.
Comments on the Draft Hazardous Waste Post-Closure Permit,
December 13, 2005.

ISSUE Appendix 1

COMMENT Page 8, Comment 7

UOP recommends the following changes to Appendix 1 to more accurately reflect the status of the referenced SWMUs:

<i>Status</i>	<i>Unit</i>	<i>Description</i>
A	No. 1 Holding Pond, No. 1 and 2 Settling Basins (SWMU No.2)	Identified in the June 7, 1990 EPA RFA. The unit is now a permitted solid waste unit (GD-017-0873).
A	The Miscellaneous Chemical Storage Area	A SWMU identified after the June 7, 1990 EPA RFA. It was formerly used as a chemical storage area. The unit is currently in the in Phase III of the RFI Workplan. Submittal of the RFI Phase III RECAP Report by UOP is pending.
A	The Aluminum Chloride Area	A SWMU identified after the June 7, 1990 EPA RFA. SWMU is a result of releases from former process units. The unit is currently in Phase III of the RFI Workplan. Submittal of the RFI Phase III RECAP Report by UOP is pending.
A	The West Fence Area	A SWMU that is currently under investigation. It was used for the placement of soil excavated from a drum storage area. The RFI Release Assessment I Workplan was approved January 11, 2005. <u>Data is being evaluated to determine whether an RFI is needed for this SWMU.</u> Submittal of the RFI Report by UOP is pending.
A	The Pipeline Excavation Area	A SWMU identified after the June 7, 1990 EPA RFA. SWMU is an area consisting of buried construction debris, catalyst spheres, and empty glass jars. <u>Data is being evaluated to determine whether an RFI is needed for this SWMU.</u> Submittal of the RFI Report by UOP is pending.

RESPONSE The Department concurs with the comment and will make the appropriate changes in the final permit.

ACTION Appendix 1 was changed to reflect the aforementioned revisions.

RESPONSIVENESS SUMMARY
UOP, LLC
BLANCHARD FACILITY
HAZARDOUS WASTE POST-CLOSURE PERMIT
PERMIT NUMBER LAD 057109449-PC-1
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ITEM 8
REFERENCE UOP, LLC, Blanchard Facility.
Comments on the Draft Hazardous Waste Post-Closure Permit,
December 13, 2005.

ISSUE Appendix 1 Table 2

COMMENT Page 9, Comment 8

UOP recommends the following changes to Appendix 1 Table 2 to more accurately reflect the status of the referenced SWMUs:

AOC/SWMU NUMBER	NAME/DESCRIPTION
Miscellaneous Chemical Storage Area	A SWMU identified after the June 7, 1990 EPA RFA. It was formerly used as a chemical storage area. The unit is currently in the in Phase III of the RFI Workplan. Submittal of the RFI Phase III <u>RECAP</u> Report by UOP is pending.
Aluminum Chloride Area	A SWMU identified after the June 7, 1990 EPA RFA. It was formerly used as a chemical storage area. The unit is currently in the in Phase III of the RFI Workplan. Submittal of the RFI Phase III <u>RECAP</u> Report by UOP is pending.
West Fence Area	A SWMU that is currently under investigation. It was used for the placement of soil excavated from a drum storage area. The RFI Release Assessment I Workplan was approved January 11, 2005. <u>Data is being evaluated to determine whether an RFI is needed for this SWMU.</u> Submittal of the RFI Report by UOP is pending.
Pipeline Excavation Area	A SWMU identified after the June 7, 1990 EPA RFA. SWMU is an area consisting of buried construction debris, catalyst spheres, and empty glass jars. <u>Data is being evaluated to determine whether an RFI is needed for this SWMU.</u> Submittal of the RFI Report by UOP is pending.

RESPONSE The Department concurs with the comment and will make the appropriate changes in the final permit.

ACTION Appendix 1 Table 2 was changed to reflect the aforementioned revisions.